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### OUR SUMMER ISSUE.

THE advent of July marks an important point in the drug and chemical trades. Although the shadow of the holiday season looms large upon it, the far-seeing business man realises that ere long the demands of autumn and winter will have to be met. The Summer Issue of THE CHEMIST AND DRUGGIST is quite timely in this regard. It is published on the last Saturday of July, and is put forth essentially as a business-promoting number, one that buyers look for and use as a means of filling their season wants. It goes to the best of them in the British Empire at home and abroad, to the leading houses in all foreign countries, and not a number is sent out without the assurance that the recipient is a business man, to whom business announcements are good for trade. The publisher of THE CHEMIST AND DRUGGIST is now booking advertisements for the issue, and those who have goods to sell to chemists and druggists, whether wholesale or retail, should not fail to secure space in the issue immediately.

### Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

MR. R. E. ROBINSON (President), Mr. A. C. Wootton, Mr. W. G. Cross, and Mr. Richard Bremridge (Secretary), representing the Pharmaceutical Society, called upon the President of the Board of Agriculture on Monday.

THE President of the Board was accompanied by the Secretary (Sir Thomas Elliott), Dr. T. E. Thorpe, and Mr. Almeric FitzRoy, clerk to the Privy Council.

THE deputation's object was to prove to the President of the Board that farmers and others interested in agriculture and horticulture have no difficulty at present in obtaining poisonous sheep-dips and insecticides through the legal channels of supply.

INCIDENTALLY Messrs. Robinson, Wootton, and Cross explained how the law relating to poisons was enacted, and that the sealed-packet and licensed unqualified vendor idea was, in effect, deliberately set aside by the Legislature in 1868.

MR. FELLOWES, President of the Board, in his reply, stated that the Board and the Privy Council have agreed upon an amendment of the law which will preclude licensing unqualified poison-vendors in places where qualified vendors are situated.

THE speeches are fully reported in the pages beginning p. 67, and the Pharmaceutical Council's remarks on p. 45. We give a portrait of Mr. Fellowes on p. 48, and comment upon the whole matter on p. 50.

THE NEW UNITED STATES PHARMACOPŒIA has been sent to us for review, and we endeavour to tell our readers as much about it as is possible in this issue.

WE give a list of articles which have been deleted from the Pharmacopœia.

THE changes which have been made in old preparations are also fully specified, and we summarise the monographs of the articles which have been introduced for the first time.

TO these are added a sketch of the essential-oil monographs and particulars of the drug assay processes.

THIS review begins on p. 54. It will be noticed that the Pharmacopœia is to be discussed at the Brighton Conference by Messrs. T. Mahen, John C. Umney, and C. T. Bennett (p. 47 and p. 52).

WE print a good deal about the arrangements for the Brighton B.P.C. meeting on p. 47.

MESSRS. MATTHEW W. BELL and C. H. Hampshire have gained this year's Bell Scholarships, and Mr. Arthur Knowles the Manchester Scholarship (p. 44).

SALE OF FOOD AND DRUGS ACTS cases include one (arsenic in glycerin) in which warranty was pleaded, but it transpired that the article sold was not the warranted one (p. 59 and p. 62). A conviction has also been obtained for the sale of milk of sulphur contaminated with arsenic (p. 60).

A HIGHER TECHNICAL COLLEGE is to be established at South Kensington by the amalgamation of the Central Technical Institution and part of the Royal College of Science, plus extensions. It is to serve for the British Empire (p. 52).

THE NEW ZEALAND proprietary medicines regulations have been entirely abrogated (p. 52).

THE P.A.T.A. and C.D.A. have had an exceptionally prosperous year. Both grew numerically, and their funds are improving (pp. 46 and 53).

LOED AVEBURY has not succeeded in getting the House of Lords to agree to his Sunday Closing of Shops Bill, and it has been thrown out (p. 53).

THE Department of Agriculture and Technical Instruction for Ireland mentions prices of commodities. We have compared them with the market quotations, and the margin of profit is so slight or non-existent that we protest against the policy (p. 55).

AT Shoreditch County Court, on July 6, Harry Ainsworth, a chemist's assistant, sued Mr. G. E. H. Long (Long's Drug Stores, 128 Clapton Road, E.) for three weeks' wages (6l. 6s.) in lieu of notice. It appeared that plaintiff was discharged because he gave the errand boy a worm tablet. He was represented in court by Mr. Cardew, and the defendant by Mr. W. S. Glyn-Jones, barrister-at-law. The latter intimately cross-examined plaintiff, quoting for his information the Offences Against the Persons Act. After hearing the errand boy and the defendant, Judge Smyley gave a verdict for the defendant, with costs.

BUSINESS in drugs and chemicals is a trifle brisker this week, and the fluctuations include higher prices for morphine salts, codeine and salts, pyrogallol acid, citric acid, tartar emetic, antimony, and Garnet shellac. Soudan gum arabic and rose leaves are firmer; nitrate of soda and turpentine are weaker. Salicylates are about to advance. An auction of first and second hand drugs is reported on p. 63.



## Corner for Students.

CONDUCTED BY LEONARD DOBBIN, Ph.D.

### Stereochemistry.

By W. W. TAYLOR, M.A., D.Sc.

#### Optical Activity and Molecular Asymmetry.

AS reference has already been made to the rotation of the plane of polarisation, it may be desirable to briefly explain what is meant by it and how it is measured. When a parallel beam of light is passed through a Nicol's prism it is plane polarised; if it is then made to pass through a second, similarly oriented Nicol's prism, the light is transmitted without further change, except a slight diminution of intensity owing to absorption. But if the second Nicol's prism (the analyser) be rotated on its axis in the plane at right angles to the direction of the beam of light, the amount of light transmitted diminishes, and reaches a minimum when the analyser has been rotated through  $90^\circ$ . This position of the analyser is taken as the zero point of the polarimeter, and there are many devices whose object is to facilitate the adjustment of the minimum point.

If an optically active substance be placed between the prisms while in this position, the amount of light transmitted will, as a general rule, be increased, and, in order to attain the minimum transmission, the analyser must be rotated through a certain angle. If the analyser has to be rotated clockwise, the substance is said to be dextro-rotatory; if counter-clockwise, it is laevo-rotatory; these are denoted by the abbreviations *d* and *l* prefixed to the name of the substance. The practical question naturally arises, how is it determined whether a substance is dextro-rotatory or laevo-rotatory, since a rotation of  $+60^\circ$  is the same as a rotation of  $-300^\circ$ ? All that is necessary is to diminish the layer of optically-active substance between the prisms to, say, one-half; the angle of rotation will be reduced to  $+30^\circ$ , or to  $-150^\circ$ , according as the substance is dextro-rotatory or laevo-rotatory.

As the amount of rotation differs with the kind of light, it is always necessary to state what kind of light the measurement is made with. Some polarimeters are made to be used with white light, others with light of one wave length only, while others can be used with monochromatic light of any wave length.

There are three classes of substances which are optically active—

1. *Substances which are optically active only when in the crystalline condition*—e.g., quartz and sodium chlorate. If the quartz is fused, or converted into a soluble silicate, or if the sodium chlorate is dissolved in water, the activity disappears.

2. *Substances which are optically active both in the crystalline condition and when fused or in solution.* There are not many substances in this class known; patchouli-camphor, rubidium tartrate, and strychnine sulphate are examples.

3. *Substances which are optically active only when amorphous, liquid, or in solution.* This class includes the great majority of optically active substances—e.g., the sugars and alkaloids.

Crystals which possess optical activity also exhibit certain peculiarities of crystalline form; in specimens of *d* quartz and *l* quartz, for instance, there are faces which are so related to each other that the crystals cannot be brought into the same position, but the one bears to the other the same relation as that of an object to its mirror image, or a right-hand glove to a left-hand glove. They are said to be *Enantiomorph*. In a word, the crystalline structure is unsymmetrical. But in the substances in class 2 the

asymmetry cannot be one of crystalline structure only, for it persists in solutions of the substances and in the fused liquids. In the substances of the two latter classes, the asymmetry must be referred to the structure of the molecule.

Almost simultaneously, and independently, Le Bel and van't Hoff put forward the view that the cause of the optical activity of carbon compounds is to be found in the asymmetry of the molecule.

**Note to Students.**—This series of articles will continue until the end of September, when a set of problems and questions will be submitted for reply by students. Prizes will then be awarded for the best papers sent in.—THE EDITOR.

## English News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Brevities.

Mr. E. Mann, chemist and druggist, has resigned his position as dispenser to the West Derby Union.

The chemists of Southend-on-Sea announce that they have suspended the Wednesday early closing for the season.

The Board of Charity Commissioners have appointed Mr. John Gilbert Mellor, chemist and druggist, of Warwick, to be Trustee of Ann Johnson's Charity.

The extensions to the Doncaster Infirmary, which were formally opened on July 3, include the adaptation of the old dispensary on the ground floor into a hospital ward.

The Essex County Council have appointed Dr. Bernard Dyer, of 17 Great Tower Street, E.C., as public analyst at a retaining-fee of 200*l.* per annum and 5*s.* for each sample analysed.

Two lads, named Jack Funnell (14) and Reginald Stanley Corner (16), were bound over under the First Offenders Act at West Kent Petty Sessions on June 30 for breaking into a chemist's shop and attempting to break into other premises at Tonbridge.

At Marlborough Street Police Court on July 1, Joseph Antoine Louis Lobjois (38), described as a chemist, was remanded on a charge of stealing and embezzling cheques and money amounting to 1,642*l.* belonging to Dr. Jules Bengué, chemist, Great Titchfield Street, W.

At a general monthly meeting of the members of the Royal Institution held on July 3, Sir James Crichton-Browne, M.D., F.R.S., in the chair, the special thanks of the members were returned to Sir Andrew Noble, K.C.B., F.R.S., for his donation of 100*l.* to the fund for the promotion of experimental research at low temperatures; and to Mr. Rollo Appleyard for his gift of a portrait of the late Professor J. D. Everett, F.R.S., M.R.I.

At an inquest held at Beeston on June 29, regarding the death of a young married woman, named Daffern, who had hanged herself, evidence was given by Mrs. Smith, wife of a labourer, who carried on the business of herbalist, that she had sold herbs and pills to the deceased woman on various occasions. The woman Smith, on this admission, was violently attacked in Court by the deceased woman's husband, and was with difficulty removed. The Coroner severely censured the herbalist, and said if further facts were obtainable regarding Mrs. Smith's knowledge of the objects for which the herbs were bought the police might probably take proceedings.

In the City of London Court on June 30, before Judge Rentoul, K.C., Mr. J. S. Blenkensee, 29 King Street, Cheap-side, sought to enforce payment of 3*l.* 19*s.* 4*d.* due from the defendant, Mr. Richard Brown, medicine-vendor, 40 Knotts Green Road, Leyton. It was said that the defendant is in peculiar straits and unable to pay the debt, that he is being pressed by several Courts, and earns his living by selling pills and medicines on the street-kerb. The plaintiff said that every Sunday morning the defendant is to be seen selling pills and medicine from a carriage and pair. The defendant denied this. The Court made an order for payment of 5*s.* a month.



**Midland Notes.**

The freehold chemist's shop and oil and colour shop, No. 21 and 21A Alcester Road, Redditch, with dwelling-house attached, was sold at auction for 1,200*l.* on June 28 by Mr. F. Smith.

In honour of Mr. Alderman Bird, of Coventry, who has been associated with elementary education in the city for a great number of years, the Council has christened its new school the "Frederick Bird School."

In view of the conference visiting Birmingham next year the local brotherhood would do well to study the arrangements made by the Birmingham Chamber of Commerce for the entertainment of the Canadian manufacturers at present visiting this country. In some respects the arrangements were unique.

Sir Thomas Chavasse, the Birmingham consulting surgeon, who received his knighthood on the King's official birthday, is a well-known local celebrity and philanthropist. He is the son of Dr. Chavasse, who wrote popular books for wives and young mothers on the management of children, etc., and is a brother of the present Bishop of Liverpool. Sir Thomas is the fourth Birmingham medical knight, the others being Sir James Sawyer, Sir Walter B. Foster, and Sir Willoughby Wade.

**Fire.**

A fire broke out on July 2 in a shed containing naphthaline at the chemical works of Messrs. Ivan Levinstein, Ltd., North Manchester, and despite the efforts of the Manchester fire-brigade, the shed was utterly destroyed. The brigade, however, prevented the spread of the flames to other portions of the works. During the progress of the fire a stream of naphthaline made its way into the river adjoining, where it blazed freely.

**Cricket.**

Playing against Bleasby at Bleasby on June 29, the Nottingham chemists made 56 runs against their opponents' 98. The feature of the match, from the chemists' point of view, was the fine display behind the stumps by Mr. C. Carr.

Leicester and Leicestershire Chemists' Cricket Club.—The return match was played at Aylestone Park, Leicester, on June 22, between teams captained by Mr. G. E. Marfitt and Mr. J. C. Lillie respectively. Mr. Marfitt's team was composed mainly of principals, and Mr. Lillie's eleven were all assistants. The latter avenged

Monmouth Guardians.—Mr. J. Frost, Churst Street, to be chemist to the Board for the year.

Belper Guardians.—Messrs. Jas. Calvert & Sons, of Belper, for the ensuing quarter's supply of chemist's goods.

Wirral Hospital.—Mr. C. H. Schumacher, chemist and druggist, of Hiswall, and Mr. J. Fawcett, chemist and druggist, of Bebington, for drugs.

Cardiff Public Sanatorium.—Messrs. Burgoyne, Burdidge & Co., of Coleman Street, E.C., for the supply of drugs for six months at 38*l.* 5*s.* 3*d.*

Bolton Guardians.—Messrs. Joseph Taylor & Co., Ltd., Bolton, for extract of malt and cod-liver oil; Messrs. Thos. Moscrop & Co., Ltd., Bolton, for disinfecting-fluid and sulphur.

North Brierley Guardians.—Messrs. R. Morrell & Co. for dysaltery, the Killgerm Co., Cleckheaton, for disinfecting-fluid, and Messrs. Hanson Bros., Wilsden, for toilet and disinfectant soaps for six months.

At the meeting of the Coventry Board of Guardians on June 28, a member complained that drugs and chemicals which a tradesman of the city was appointed to supply were obtained from other sources, with the result that the appointed tradesman only received during the year orders amounting to about 1*l.* The idea probably was to get the goods in quantities at wholesale prices. He thought that the appointed tradesman should have the opportunity of seeing whether he could supply the same goods at the same price. Another member asked who was responsible for placing the orders with wholesale firms; he thought the matter should be gone into carefully. Ultimately the matter was referred to the Stores Committee.

At a meeting of the Newcastle-under-Lyme Board of Guardians on June 26, a committee appointed to go through the tenders for drugs reported that they had decided to divide the tenders in accordance with the prices, but the chemists who had tendered had declined to enter into any contract upon these terms and said that the whole of the order should be given to one chemist. The committee had not seen their way to adopt this course and referred the matter to the whole Board. The Chairman of the Board (Rev. P. G. Mainwaring) said he was not surprised that the chemists would not submit to a divided tender, as the Board did not divide other contracts. As four-fifths of the whole



their defeat of May 25, Mr. Marfitt's team being beaten by 29 runs. Between the innings the photograph of the Club (reproduced herewith) was taken.

**Contracts.**

The following tenders for drugs, etc., are announced as have been accepted:

Bradford Guardians.—Messrs. Stephenson Bros., Ltd., Bradford, for dysaltery.

tender had been given to Mr. C. J. Wain, pharmaceutical chemist, who had the lowest aggregate price, the Board decided to give the whole order to him.

Bristol Poor-law Guardians.—Messrs. Ferris & Co., Ltd., of Union Street, Bristol, for drugs and pharmaceutical preparations for the ensuing two years. Some of the prices for articles required for workhouses and cottage homes are appended: Acid, tartaric, 1*s.* per lb.; ether chloric, 2*s.* 11*d.*



per lb.; antipyrin, 6*d.* per oz.; bismuth subnitrate, 8*s.* 10*d.* per lb.; bismuth salicylate, 8*s.* 6*d.* per lb.; chloroform pur, 5*s.* per lb.; decoct. senegæ, 2*s.* 4*d.* per lb.; ext. cascár. sagrad. liq., 1*s.* 3*d.* per lb.; liniment. iodi, 4*s.* 3*d.* per lb.; liq. morph. hydrochlor., 1*s.* 8*d.* per lb.; pulv. cret. aromat., 10*d.* per lb.; pulv. glycyrrh. co., 6½*d.* per lb.; quin. sulph., 1*s.* per oz.; spt. ammon. arom., 2*s.* per lb.; sulphonal 4½*d.* per oz.; tinct. bellad., 1*s.* 11*d.* per lb.; tinct. calumbæ, 1*s.* 9*d.* per lb.; tinct. cinchon. co., 2*s.* 7*d.* per lb.; ung. acid. boric, 7½*d.* per lb.; ung. gallæ c. opio, 1*s.* 10*d.* per lb.; vaseline, 6½*d.* per lb.; zinci oxidi, 5*d.* per lb.; fullers' earth, 5*s.* 6*d.* per cwt.; jaconet (pink), 1*s.* 4*d.* per yard; crushed linseed, 13*s.* per cwt.; boric lint, 10½*d.* per lb. The drugs required by the district medical officers include tinct. digitalis, 1*s.* 9*d.* per lb.; potassium bromide, 1*s.* 6*d.* per lb.; tinct. opii, 2*s.* 4*d.* per lb.; cholera mixture (as per M.O.'s prescription), 4*s.* per gal.; cod-liver oil (in 8-oz. bottles), 4*s.* 9*d.* per doz.; stomachic mixture (rhubarb, soda, gentian, and peppermint-water), 1*s.* 4*d.* per gal.; compound petroleum ointment (hydrarg. ammon., liq. carbonis deterg. and paraffin molle), 9*d.* per lb.; linimentum "album," 4*d.* per lb.; and purgative pill (ext. coloc. co., pil. hydrarg., and ext. hyos.), 10*d.* per lb.

#### Whitecross Diners.

The annual dinner given by Messrs. Hodgkinsons, Clarke & Ward to their travellers, clerks, and assistants, took place at the Holborn Restaurant on Saturday, July 1, Mr. Gray in the chair. The toast of "The King" having been honoured, the company drank to "The Firm," Mr. G. Hodgkinson ably responding. "The Travellers," "Warehouse," and "Counting House" were all toasted and responded to by their various representatives. The proceedings were pleasantly diversified with songs, etc., by Messrs. Gray, Lewis, Maylin, Richardson, Walkin, Jarrett, and others, Mr. Coupland presiding at the pianoforte, and the success of a most enjoyable evening was due in no small measure to his untiring efforts. The remainder of the employés enjoyed an agreeable outing to Loughton, where they were feasted at the "Robin Hood."

#### Sheffield Notes.

Mr. J. T. Dobb, chemist and druggist, of Westbar, has subscribed 5*l.* to the Royal Reception Fund.

In some interesting notes on the Society of Quakers in Sheffield, which have appeared in the "Sheffield Daily Telegraph" this week, the author mentions that amongst the signatures attached to the rules of the Society, formed in 1804, appears the signature of Mr. Richard Sutcliffe, druggist.

At a Local Government inquiry held at the Town Hall on June 28, with reference to an application made by the City Council for sanction to borrow money for certain sewerage works, Mr. J. M. Furness, J.P., chemist and druggist, attended in opposition and contended that the sewer should not be constructed out of capital but out of revenue.

At a meeting of the Court of Governors of the Sheffield University on June 30, a recommendation was approved to appoint Sir Charles Eliot, K.C.M.G., as Vice-Chancellor in place of Professor Hicks, retired. It is understood that the promoters of the University Bill will accept an amendment to delete the clause giving power to send a delegate to the General Medical Council. The Leeds University have decided to invite the Sheffield University to elect a representative upon the Court of the Leeds University—a graceful way of wiping out any traces which may remain of the feeling which was shown at one stage.

#### Public Health Congress.

The London Congress of the Royal Institute of Public Health is to be held from Wednesday, July 19, to Tuesday, July 25, at King's College and the Polytechnic, Regent Street, W., under the presidency of Sir James Crichton Browne. Amongst the papers to be contributed we observe one on "Some Essential Amendments of the Public Health Acts," by J. C. McWalter, M.D., and another on "The Tanking of Sewage," by F. Wallis Stoddart, F.I.C. The communications and discussions will be very numerous, and the members are assured also of much social entertainment. In connection with the Congress there will be an exhibition of sanitary and educational appliances at the Polytechnic, Regent Street, W.,

from July 19 to Friday, July 28. An interesting display will be made by several firms dealing in sanitary, medical, and educational appliances. The inaugural meeting and opening of the exhibition will be at His Majesty's Theatre, Haymarket, on Wednesday, July 19, when the President (the Marquis of Londonderry, K.G.) will give his inaugural address. On the evening of that day there will be a fête at the gardens of the Royal Botanic Society, Regent's Park. The Hon. Secretary of the Congress is Mr. James Cantlie, M.A., M.B., Russell Square, W.C., and from him further particulars can be obtained. Mr. Cantlie informs us that the public will be admitted to seats in the upper circle at His Majesty's Theatre at the opening ceremony.

#### Raising the Subscription.

The Finance Committee of the Royal Botanic Society of London introduced a resolution at a special meeting on June 23, raising the subscription of fellows and members from two to three guineas per annum. In the sixty-five years since the Society was formed wages have increased by two-thirds, taxes have risen from 17*l.* to 409*l.*, the cost of materials has doubled, and, latterly, on the granting of a new lease, 165*l.* was added to a rent of 285*l.* Thus it is estimated an annual deficit of 222*l.* is produced. In addition the Committee consider it absolutely necessary to provide 600*l.* yearly for a sinking fund to meet debenture liabilities. Whether the difficulty can be finally resolved by raising the subscription has yet to be decided by the fellows.

#### Visit to Dartford.

One of the outstanding features of the Society of Chemical Industry's meeting next week is the visit to be paid to Dartford, on the invitation of Mr. Henry S. Wellcome, of Burroughs Wellcome & Co. This will commemorate the quarter-centenary of the foundation of the firm. The visit will be on Saturday, July 15. A special train will leave Charing Cross at 11.10 A.M., and from 11.50 A.M. to 9 P.M. the visitors will have a round of entertainments, including sports, Maypole dance, drill, concert, and a firework-display, there being intervals for luncheon, tea, and dinner.

#### For Wholesalers.

The Birkenhead and Wirral Chemists' Association have sent to most of the wholesale houses the following resolution passed at their last meeting:

At a meeting held on June 29 of the Birkenhead and Wirral Chemists' Association, it was proposed by Mr. Cragg James and seconded by Mr. Breeze, that—"We, the chemists of Birkenhead, in order to protect ourselves against vexatious prosecutions, request all wholesale houses to give a warranty on each invoice that all B.P. preparations enumerated thereon answer the B.P. tests."

The Association request an acknowledgment of this together with an answer as to whether the house agrees to the proposal.

#### No Need for Anxiety.

In reference to the attempt at Bradford to work up a red-rubber scare, the reassuring statements of Mr. F. W. Richardson, the city analyst, have now been supported by a report made to the Health Committee by the medical officer of health, Dr. Arnold Evans. Dr. Evans stated that it was possible that somebody might have found traces of antimony in aerated waters which had been improperly stored in hot places in bottles fitted with old and worn rubbers, and he believed that so much as 10 per cent. of antimony was used in vulcanising these rubber stoppers. But antimony was a very difficult thing to get into a solution and, in fact, the process required hot acids and alkalies. It was exceedingly improbable, therefore, that mineral waters would contain even traces of antimony, and he did not consider there was any need for anxiety.

#### The Rotherhithe Liquezone Case.

At the Rotherhithe Coroner's Court on Tuesday, July 4, Mr. H. R. Oswald concluded his inquiry as to the death of Mary Slaughter, of Bermondsey, who died at the end of May. At the first hearing the evidence revealed that the deceased had suffered from vomiting and inability to retain even liquid. Dr. Nesbit Wright, who had attended her, diagnosed gastritis, and on her death gave a certificate to that effect. He subsequently learned, however, that the deceased had taken some Liquezone, and on informing the



Registrar the certificate was withheld and the matter reported to the Coroner, who ordered an autopsy. Dr. Wright then discovered a congested patch in the stomach and several small congested patches on the mucous membrane of the small intestines. He could not say whether they had been caused by Liquozone or chronic alcoholism, to which the woman was addicted. In these circumstances the case was adjourned to await the result of an analysis. At this week's hearing Mr. Chas. Matthews watched the case on behalf of the Liquozone Co. Dr. Ludwig Freyberger, the L.C.C. pathologist, said he had analysed a sample of Liquozone which had been uncorked when he received it, and found that the mixture contained 0.224 per cent. of sulphur di-oxide, equal to a little over 0.300 per cent. of hydrated sulphurous acid, and sulphuric acid 0.848 per cent., making a total of a little over 1 per cent. of acidity. There was a very small quantity of hydrochloric acid, sulphates of calcium and sodium, and a small trace of arsenic, but too small to be estimated. The remainder was water. He examined the stomach, and described its condition. He tested the stomach-contents but failed to find any traces of the substances contained in Liquozone. He had come to the conclusion that the immediate cause of death was failure of the heart accelerated by gastritis, which doubtless was present while the deceased was suffering from fatty heart and other changes, but it was impossible for him to say whether or not the dose of Liquozone did anything to help cause the death. The Coroner put several questions to him about this, and Dr. Freyberger said it was not probable that the conditions he observed were due to the dose of Liquozone, even though the woman was an alcoholic. The Coroner summed up in a lengthy speech, concluding that the jury might decide very impartially that Liquozone was not the cause of death in that case. The jury returned a verdict that the deceased died from failure of the heart's action, owing to inflammation of the stomach consequent upon chronic alcoholism.

## Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Personal.

Mr. C. J. B. Dunlop, proprietor of "The Medical Hall," 12 Lower Camden Street, Dublin, was awarded first prize and medal in materia medica, and first prize and medal in public health and forensic medicine, at the recent examination in these subjects at the Royal College of Surgeons, Ireland.

Mr. J. L. Hogan, late of Hamilton & Long's, Dublin, who served as a volunteer in the Irish Hospital during the Boer War, was recently, at Pretoria, the recipient of a purse of gold from the employees of the C.S.A. Railway. Mr. J. Hogan has been chemist to the C.S.A.R. for the last five years, and the presentation was made by his friends on the occasion of his leaving for Europe on a six-months' holiday as a slight acknowledgment of his services and kindness. The presentation was made at a smoking-concert on June 7.

### C. & D. Society.

Mr. W. J. Rankin, Secretary of the Chemists' and Druggists' Society, Ireland, referring to a paragraph in this section last week (page 5), writes that there is no new society being formed. The Chemists' and Druggists' Society, he adds, is fully representative of the drug trade and is being further extended by the taking of a room at 11 Waring Street, Belfast, for a term of ten years. A fund has been opened to provide means for repairing and furnishing, and already amounts to 32l. 3s. 6d.

## Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### The Hawker and the Bailie.

At Oban on June 29, a hawker, named Ross, was fined 10l., with the option of sixty days' imprisonment, for having thrown a stone through a plate-glass window in the shop of Bailie Robertson, chemist and druggist, in George Street. It appears that Bailie Robertson had some time previously sentenced Ross to sixty days' imprisonment for wife assault.

### Random Notes.

Does it not show a spirit of "contrariness" that some members of the Executive of the North British Branch do not wish to sit on it without Standing Orders?

Mr. George Seivwright, chemist and druggist, Cullen, Banffshire, has, on the recommendation of the Duke of Richmond and Gordon, been made a Justice of the Peace for the county.

In the Class Lists of the University College, Dundee, for the Summer Session, 1905, the following successes in practical pharmacy are recorded: First Class—(1) W. T. Munro (medal), (2) E. F. Murray. Second Class—(3 and 4) C. H. Lilley and J. C. Tennant, M.A. (equal), (5) A. T. Cunningham, (6) A. Mills.

### Edinburgh Chemists' Golf Club.

A match between teams representing the Captain and Hon. Secretary was played over the course of the Insurance and Banking Golf Club at Duddingston, kindly granted for the occasion, on Wednesday, July 5. The Captain's team defeated that of the Hon. Secretary by 29 holes.

### Home from Patagonia.

Mr. Ian Robertson, son of Bailie Alexander Robertson, chemist, Oban, is at present at Oban on a short visit, after over two years' absence in Patagonia. Mr. Robertson was for eighteen months at a sheep-breeding *estancia* on the Gulf of St. George. Subsequently he went south to join his brother, Mr. Alexander D. Robertson, chemist and druggist, then on a visit to the country. The brothers rode together from the Rio Gallegos, in Argentina, west towards the Andes, and then south to Punta Arenas, on the Straits of Magellan (Chile). From there Mr. A. D. Robertson returned home and his brother went back on the tracks to Rio Gallegos, and from there visited many *estancias* west to the foot of the Andes, in order to learn as much as possible about the different methods of breeding and rearing sheep. Mr. Ian Robertson intends returning to Patagonia in September, to settle there permanently.

### No Burglary.

Considerable public attention was attracted to the premises of Messrs. H. C. Baildon & Son, chemists, 73 Princes Street, Edinburgh, on Sunday evening, July 2, between nine and ten o'clock, through the efforts of a man to escape from the front shop by a fanlight. The conclusion naturally arrived at was that he was a burglar who had been scared in the midst of his nefarious practices. A crowd quickly gathered and augmented when a policeman arrived and peered through a reflector in the door and was evidently watching the burglar's movements. Fortunately, however, at the crucial moment an assistant in the shop came on the scene and obtained entrance to the premises. The supposed "burglar" quickly appeared and proved to be one of the workmen in the aerated-water manufactory, who after admitting himself by the back door had mislaid his keys, evidently beyond recovery, and had found it necessary to seek egress by the roof.

### Edinburgh Chemists', Assistants', and Apprentices' Association.

The last botanical excursion of the summer session took place on Wednesday, June 28, when fifteen members, under the leadership of Mr. J. Rutherford Hill, travelled by train from Waverley Station at 5.45 A.M. to Blackford Hill Station, from which they proceeded round the hill by Braid Burn to Nether Liberton, and from thence by car back to town, which was reached about 9 A.M. The weather was all that could be desired, and a very profitable time was spent, the route being specially rich in material for field-work. It was felt that a morning excursion was more enjoyable than an evening one, from the fact that there was no disappointment from failing light. At the Braid Burn very successful group photographs were taken by Messrs. Forret and Dunnet.

The summer session concluded with a meeting at 36 York Place, Edinburgh, on Friday evening, June 30, when a large number of fresh plants were exhibited. There were specimens from Blackford Hill, Colinton Dell, Craigcrook Pond, Eskside, Musselburgh, Leadhills, Loch Doone, and Macduff. These were all arranged systematically, with the assistance of Misses Glass and Watson, and Mr. Rutherford Hill described the collection, which included plants representing thirty-nine orders, eighty-six genera, and 121



species. On the motion of Mr. McCutcheon, President, a vote of thanks was awarded to Mr. Rutherford Hill.

#### Glasgow Notes.

There is still a lamentable dearth of candidates for the Kinnimont prize. Candid critics suggest that means ought to be taken to popularise the competition without lowering the standard.

Messrs. W. L. Currie, J. W. Sutherland, R. Brodie, and J. P. Gilmour have been appointed delegates to the Brighton Conference and Federation meeting from the local pharmaceutical association.

A scientific-instrument dealers' errand-boy delivered some goods to the Technical College on Tuesday, and afterwards ascended to the roof of the college with another boy. While there he lost his balance and fell to the ground, death being instantaneous.

Mr. James R. MacRossen has acquired new premises in Albert Road, Pollokshields, which he expects to occupy by the end of September. This will be the fourth domicile of this well-known pharmacy since its establishment by the late Mr. Alexander Kinnimont, and demonstrates the rapid expansion of Greater Glasgow.

The final plebiscite is now being taken to decide whether Glasgow shall adopt the Shop Hours Act, 1904. Over 14,000 voting-papers have been issued to shopkeepers within the municipal area. The number of trades scheduled is sixty-eight, and of those the trades vending goods also common to chemists and druggists, about which difficulty may arise, are grocers, opticians, scientific-instrument dealers, photographic dealers, artificial-limb dealers, bandage and truss dealers, herb-dealers, and drysalers. A lively and occasionally acrimonious newspaper controversy on the subject is going on between representatives of the conflicting interests involved.

### THE WEEK'S POISONINGS.

FOUR of the fourteen fatalities that have occurred during the week from poisoning were misadventures—a child being the victim in each case. Two occurred at Coventry, Jeanie Colligan (2½), daughter of a bicycle-builder in that town, ate plantain-leaves she had gathered in a field, and died from acute gastro-enteritis. In the same town John Spicer, infant son of a bicycle-finisher, drank some spirit of salt out of a basin, and died.—At Aspall a three-year-old child, son of a collier named Dickinson, drank some liquid from a ginger-beer bottle which his grandmother used to kill snails. A man named Rudd had obtained the solution from the Wigan Coal and Iron Co.'s works, where it was used for cleaning windows. Dr. Girdwood said the bottle contained hydrofluoric acid, and death was due to shock from drinking the poison.—The fourth misadventure was at Bolton, where Esther Alice Oldham (2½) inadvertently drank some vermin-killer. At the inquest the senior house-surgeon said death was due to poisoning by a corrosive fluid.—Ethel Fullbrook (20), of Islington, pawned her earrings for 1s. to buy some spirit of salt, with which she poisoned herself.—At an inquest at Nottingham on the body of a married woman named Louisa Brummell, who took some pills for the purposes of abortion and died from acute lead-poisoning, accelerated by septicæmia, the jury returned a verdict of *felix-de-se*.—The scheduled poisons used were potassium cyanide (2), carbolic acid (4), strychnine, and laudanum. Samuel Wingfield (48), silver-finisher, of Sheffield, poisoned himself with cyanide, which he drank in beer; and the same poison was taken by Wilhelm Milfeld, a German, who was found dead in the Bedford Hotel, Holborn. The carbolic-acid suicides were Jane Washbourn (44), wife of a Liverpool newsagent; Edith Wright (34), a music-teacher, of Longsight, Manchester; Lieutenant John Waring Belcher (24), of the Royal Garrison Artillery, who poisoned himself in London because of *ennui*; and a stableman named Robert Lindsay, who drank the acid in a waiting-room at Prince's Street Railway Station, Edinburgh, and died in the Royal Infirmary.—Rachael Barker (51), of Sheffield, committed suicide with laudanum; and a man of thirty or thirty-five was found dead in Kennington Park, having been poisoned by strychnine, believed to be self-administered.

## French News.

(From our Paris Correspondent.)

**THE VIOLET ROSETTE.**—M. Tassilly, assistant professor at the Paris Superior School of Pharmacy, has been named "Officer of Public Instruction."

**AN EXCURSION.**—One hundred members of the Pharmacy Students' Amical Association, headed by M. Tassilly, were recently shown over the laboratories of the Pharmacie Centrale de France at St. Denis, and an instructive and interesting afternoon was spent. In the morning a still larger group had visited the Paris premises of the same firm.

**M. CURIE AN ACADEMICIAN.**—A particularly interesting election took place at the Paris Academy of Sciences (Section of Physics) on July 3, the candidate being M. Pierre Curie, of radium fame, and he was elected by a considerable majority. It was understood that it was not so much M. Curie who sought Academical distinction, but rather that the Academy seized the opportunity of doing honour to the world-famed scientist.

**WEDDING BELLS.**—A wedding that created much interest in pharmaceutical Paris was celebrated at the Notre Dame de Lorette Church on July 3 between Dr. Barthelat, of the Paris Superior College of Pharmacy, and Mlle. Jean Fiquet, daughter of Dr. Fiquet, the physician attached to the French Home Office. Professor Guignard, the distinguished Director of the Paris College of Pharmacy and member of the Institute of France, was one of the witnesses for the bridegroom.

**THE GENERAL ASSOCIATION OF FRENCH PHARMACISTS** held its annual gathering at Lyons at the commencement of this week and was largely attended. The business meetings took place at the Mixed Faculty of Pharmacy and Medicine, a handsome and extensive building on the banks of the river Rhône. A varied and interesting programme comprised several banquets, visits to the Textile Museum, the Thermal Establishment of Charbonnières-les-Bains, and a steamer trip on the river Saône.

**ACCIDENTAL POISONING.**—In the course of the evidence given at Douai a few days ago during the trial of a Sister of Mercy for accidentally poisoning a non-commissioned officer who was under treatment at the military hospital of that town it transpired that one of the male nurses who had attended the deceased soldier was unable to read, and consequently had not noticed that the ingredients mentioned on the label of a bottle of medicine did not agree with the prescription. This statement caused considerable sensation in Court.

**THE LYONS SOCIETY OF PHARMACY.**—The centenary of this Society was celebrated at Lyons on July 1, 2, and 3, and was the occasion of a gathering of very distinguished French pharmacists, as it coincided with the meeting of the General Association of French Pharmacists. One of the principal functions connected with the gathering was the inauguration of a bust in memory of Professor Crolas, who occupied the Chair of Pharmacology for thirty years at Lyons. He was also instrumental in assisting very materially in successfully combating the phylloxera, on which subject he worked with the well-known chemist Dumas.

**A MYSTERIOUS AFFAIR.**—The town of Bordeaux is a good deal occupied just now with an affair of poisoning that turns on a question of bogus prescriptions. Vague rumours concerning the matter have been current for several weeks, but now take more definite shape. A certain M. X—, a well-known broker, suffered severely from poisoning by a mixture supplied by a pharmacist of the town made up in accordance with a prescription which bore the forged signature of a country doctor. It is stated that the life of the broker was only saved by the intervention of the family and three of his friends, who took the patient away from his own house to a private hospital, where he is still under treatment. Public rumour accuses the broker's wife and an accomplice of attempted murder. But so far the false prescription and the delivery of the poisons are the only things that are definitely proved.



## Australasian News.

*Communicated by the Australian Staff of "The Chemist and Druggist."*

### New South Wales.

**ANTIPYRIN SUICIDE.**—On May 4 an inquest was held at Sydney on the body of a young married woman named Sinclair, who told her husband on the previous night that she had taken a number of antipyrin powders. She had just given birth to a still-born child, and had frequently threatened suicide. A verdict of suicide was returned.

**THE CHEMISTS' ASSISTANTS' ASSOCIATION** of Sydney is to be wound up. A few weeks ago, when Mr. J. G. Tingle took up the presidency, great efforts were made to revive interest in the Association, but the scheme fell flat. At a meeting held on May 23 a reorganisation scheme was discussed, but as there seemed no hope of securing united action on the part of the assistants, it was eventually decided that the Association be wound up.

**RECIPROCITY WITH GREAT BRITAIN.**—The Pharmacy Board of Queensland have written to the Pharmacy Board of New South Wales saying that they would be pleased to join the N.S.W. Board in representing to the Pharmaceutical Society of Great Britain the desirability of providing for the recognition of Australian pharmaceutical certificates. The Board, the letter added, was doubtless aware that this question had been previously submitted to the parent Society by the Queensland Board. The attitude taken up by the British Society had been most favourable throughout, but it had been clearly understood that if reciprocity be extended to the British Colonies it would be strictly limited to the examination qualification, and it was also understood that a curriculum would be required. It was only on this basis, in the opinion of the Queensland Board, that the request to the British Society can be made, or that Imperial reciprocity can ever be established.

### Queensland.

**P.A.T.A.**—This movement in Queensland has not received a very great deal of support. The subscriptions amounted for the year to 28*l.* 8*s.*, and some correspondence has taken place. But no one has been appointed to do the personal visitation which is required. An effort is to be made to get manufacturers to make arrangements such as have been successfully carried out by Mr. Hearne, of Hearne's bronchitis-cure.

**MR. GEORGE WATKINS**, who left by the *Aorangi* on May 18 for a trip to England *via* Canada extending over six or seven months, has been asked by the several pharmaceutical institutions with which he has been so long connected, and for which he has done so much useful work, to represent them during his travels (see *C. & D.*, July 1, p. 9). It was the unanimous wish of his fellow-members that he should retain the positions he held, and it is hoped that he will have the time to acquire much special and general information and extend the good feeling which has been fostered by others who have preceded him and which should lead to a much closer bond at no very distant date. Mr. Watkins was presented with a handsome travelling bag by the Toowong Methodist Church circuit in recognition of his long and valuable services as circuit steward, and the Horticultural Society of Queensland expressed their appreciation of his services as Treasurer by giving him a pair of field-glasses. [See also p. 48.]

### Victoria.

**MR. ALFRED E. BATES** started for England on May 26, and will be absent several months. He is well known in Victoria. He began work with the firm of Duerdin & Sainsbury in October, 1874, and remained with them until December, 1896—22½ years—when owing to rearrangements of the business after the death of Mr. Duerdin he left that firm. The following month (January, 1897) he joined the firm of Roche, Tompsitt & Co., and left their employ in March, 1902. Since then he has been working on commission among the chemists and druggists of Melbourne and Victoria.

## Births.

**SMITH.**—At Briarfield, Chatsworth Road, Chesterfield, on July 1, the wife of F. A. Upsher Smith, pharmaceutical chemist, of a son.

**WASS.**—At Holbeach, on June 29, the wife of Charles Wass, chemist and druggist, of a son.

## Marriages.

**AUSTIN—WATTS.**—At the Cathedral Church, St. John's, Antigua, B.W.I., on June 10, Arthur P. G. Austin, second son of the late Mr. John Gardiner Austin, of Barbados, to Louisa Frances, elder daughter of Dr. Francis Watts, C.M.G., of Antigua.

**DAVIES—GILLET.**—At Tunbridge Wells, on June 21, Charles Sidney Davies, chemist and druggist (of Cruse & Co., Southsea), to Frances Gillett, of Tunbridge Wells.

**LAIRD—MENELAWS.**—At the Balmoral Hotel, Edinburgh, on June 28, by the Rev. Alex. Neil, Mayfield Parish Church, and the Rev. Dugald Butler, of the Tron Kirk, James Craigie Laird, pharmaceutical chemist, Queensferry Street, Edinburgh, to Jessie, daughter of Mr. W. Menelaws.

**NAPIER—ROBERTSON.**—At 7 N.-W. Circus Place, Edinburgh, on June 30, by the Rev. James Durran, M.A., Queen Street U.F. Church, Duncan Scott Napier, chemist and druggist, Ruby Villa, Sciennes Gardens, and 17 Bristo Place, Edinburgh, to Margaret, youngest daughter of the late Mr. John Robertson, brush manufacturer, Edinburgh.

**SCOTT—CAMPELL.**—At 18 Hillside Crescent, Edinburgh, on June 30, by the Rev. James Park, St. John's, Leith, James Weir Scott, chemist and druggist, Edinburgh, to Mary Burns, youngest daughter of Mr. David Campbell, shipmaster, Leith.

**STEWART—KIDD.**—At the Station Hotel, Kirkcaldy, on June 21, by the Rev. J. W. Gibson, M.A., Dysart, assisted by the Rev. Donald Gray, M.A., Pathhead, Francis Gordon Stewart, chemist and druggist, Kirkcaldy, to Helen Clark, fourth daughter of Mr. Alexander Kidd, Gallatown.

**THORPE—HAYWARD.**—At Dartford, Kent, on June 28, Albert Thorpe, pharmaceutical chemist, Archway Road, N., to Sarah Ann, daughter of the Rev. Edward Hayward, for many years pastor of Dartford Congregational Church.

## Deaths.

**GRINDELL.**—On June 12, Mr. John Grindell, chemist and druggist, Bridlington, aged fifty-eight.

**HEWSON.**—At East Gate, Beverley, on June 28, Mr. Stephen Hewson, chemist and druggist, of Wednesday Market, aged seventy-three. Mr. Hewson died from pneumonia after a few days' illness. He was one of the oldest tradesmen in the town.

**KNIGHT.**—At Rendezvous Street, Folkestone, on June 30, Mr. John Knight, pharmaceutical chemist, aged sixty-seven. Mr. Knight, who was born in London, commenced business at Folkestone in 1880. Eighteen months ago he sustained a severe shock by the death of his wife, and in February last he was greatly upset by the explosion of two carboys in his shop, when he sustained an injury to his hand. These shocks to the system are believed to have accelerated his death, which was due to heart failure. Mr. Knight was for twenty years churchwarden of the Folkestone parish church, and up to the time of his death he acted as a sidesman. The funeral took place at Folkestone on July 4.

**LANCE.**—On June 26, Mr. William Nathaniel George Lance, chemist and druggist, 207 Copenhagen Street, N., aged sixty-one.

S. F. Goss, LTD., 201 Regent Street, W., and elsewhere in London, inform us that they are in no way connected with Morny Frères, Ltd., nor is Mr. S. F. Goss, the founder of the later company, connected with them.



## Trade Notes.

OOWANA'S "thirteen to the dozen" bonus scheme is for this month only.

MESSRS. ARTHUR H. COX & Co., LTD., Brighton, inform us that their premises will be closed on July 15, on the occasion of the annual outing of the staff.

MESSRS. BURROUGHS WELLCOME & Co. inform us that their offices, warehouses, wharf, and works will be closed on Saturday, July 15, on the occasion of their quarter-century commemoration fête and the visit of the Society of Chemical Industry to Dartford.

PACKED DRUGS.—A new edition of the illustrated list of packed drugs, perfumes, and toilet soaps has just been issued by Messrs. Allen & Hanburys, Ltd., Bethnal Green, E. This issue has been enlarged to sixty-four pages, and contains illustrations, with descriptive matter and prices, of the principal lines in packed goods. A copy of the list will be sent to any chemist who desires to have one.

THE OXO Co. announce that they are extending their offer of free portrait enlargements in exchange for Oxo coupons for a further twelve months, to June 30, 1906. They are also arranging to supply enlarged photos of celebrities instead of the ordinary enlargements of private photos, if preferred. All Oxo coupons, no matter what date they bear, will be valid till the end of June 1906.

THE JULY PRICE-LIST of Messrs. Evans, Gadd & Co., Ltd., of Bristol and Exeter, is characterised by an announcement in the inside front cover that the manufacturing and analytical laboratories of the company "are always open for inspection by chemists. None of our products are secret preparations." The last page and the inside back-cover are devoted to an article on "The Direct Representation of Pharmacy in Parliament," by Mr. H. Wippell Gadd.

THE DANYSZ VIRUS for the extermination of rats and mice, thanks to the energetic manner in which its properties are laid before the public by Danyasz Virus, Ltd., 52 Leadenhall Street, E.C., is making rapid headway in this country. We observe that quite a large number of our daily contemporaries have quoted from the *C. & D.* a recent paragraph we inserted from the report of the British Consul in Bordeaux, and if these bring inquiries retailers will understand what is required.

SQUIRE'S "POCKET COMPANION."—Messrs. Squire & Sons, 413 Oxford Street, London, W., have published this week an appendix to the "Pocket Companion to the B.P.," comprising a *résumé* of medical and pharmaceutical topics which have been recorded during the latter part of 1904 and the first portion of 1905. This forms a compact account of new remedies and treatment extending to thirty-three pages, and it is followed by a list of the firm's own specialities, this section being illustrated. Any of our subscribers can get a copy of the "Appendix" gratis on application to Messrs. Squire & Sons.

CHEMISTS' MACHINERY.—The new price-list issued by Messrs. J. W. Pindar & Co., of 31 Ballina Street, Honor Oak, S.E., is an interesting one to most chemists. The rotary pill-machines manufactured by Messrs. Pindar are well known in pharmacy, but besides pill-making machinery of all kinds there are mixing and emulsifying machines, tincture-presses, plaster-spreading machines, root-cutters, cork-presses, powder-folders, suppository-moulds, and tablet-machines priced in the list. Moreover, repairs are made a speciality. Trolleys of all descriptions and sizes are described and priced in a special list.

THE NEW CATALOGUE issued by Messrs. Barclay & Sons, Ltd., 95 Farringdon Street, E.C., is bigger than ever, and has embodied in it several new features. The first section deals with druggists' sundries; then follows a section devoted to packed goods, and illustrated by capitally produced half-tone pictures; and finally the very complete list of proprietary and patent medicines is given. In this last-named section a useful arrangement of P.A.T.A. prices has been made; the full retail prices are given, and in blacker type the P.A.T.A. minimums. Messrs. Barclay will be pleased to send a copy to any subscriber who has not received one.

NEW POISON-BOTTLES are difficult to find, but we think the "Ægis" has a distinction which will secure it a place in medicine and pharmacy. The one that we illustrate shows the shape—viz., a flat, shaped like a coffin—and we have selected this illustration to show an additional precaution to the "distinguishable by sight and touch" idea, which was the designer's notion; this is the screw-cork—i.e., an ordinary cork within a tin screw that fits on the neck of the bottle. This is a simple and effective precaution which chemists will appreciate. The bottles are also made for corks and glass stoppers, and in actinic, amber, and blue glass. They are stocked by the principal druggists' sundriesmen and wholesale houses, from whom retailers may obtain them.

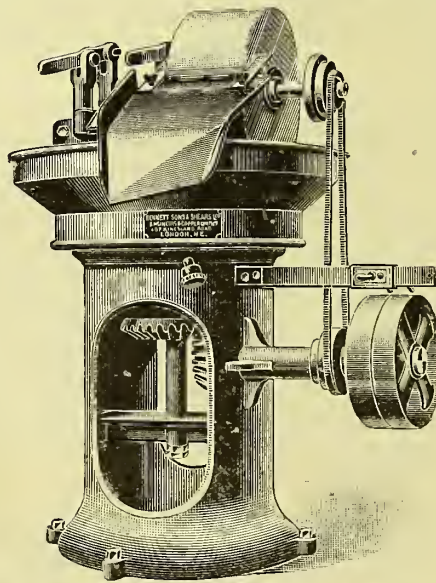


"TABLOID" PHOTOGRAPHIC OUTFIT.—Messrs. Burroughs Wellcome & Co., Snow Hill Buildings, E.C., have just introduced for retail at 5s.

a neat japanned tin-box of photographic chemicals, containing all the materials for developing and fixing plates on bromide-papers, and for toning and fixing silver prints. The case is not too large to put into a jacket-pocket, and if the leather case for the  $\frac{1}{2}$ -plate folding camera were made a little deeper this chemical case could easily be carried in it. The outfit should sell at sight to holiday-makers.



THE "ARTS" MILL.—Messrs. Bennett, Sons & Shears, Ltd., 167 Kingsland Road, N.E., bring to our notice their "Arts" mill, which is a favourite with many manufacturing chemists for compounding ointments, tooth-pastes,



and similar masses. The bed and runner made of marble, are mounted in a cast-iron pan, supported and revolving on a cast-iron pedestal, with lay-shaft and the necessary gearing. The mill is fitted with suitable plough, scrapers, and discharge-shoot. The mill, which will make 56 lbs. of ointment at a time, or 14 lbs. of any very smooth ointment in two hours, works noiselessly, and is easily cleaned. To drive the mill it requires less than one-horse power.



## Birthday Honours.

ON the occasion of the official celebration of his birthday King Edward VII. bestowed a number of honours, and amongst the recipients are several whose names are well-known to chemists. Lord Rayleigh, the physicist, and Sir R. B. Finlay, Attorney-General, are made members of the Privy Council. It was the latter gentleman who about a dozen years ago gave us the opinion that such names as "Gregory's Powder" attached to non-proprietary medicines do not make the medicines liable to stamp-duty.

A baronetcy has been bestowed upon Mr. S. B. Boulton, Chairman of Burt, Boulton & Haywood, Ltd., tar distillers, London and elsewhere. It is more than fifty years since the new baronet, in association with the late Mr. H. P. Burt,



SIR SAMUEL B. BOULTON, BART.

founded the business of which he is now the head. The works in the East of London are a marvel of engineering skill, and include huge plant which enables tons of tar to be continuously fractionated. The "creosote" fractions are used in the timber part of the company's business, to which the tar-distilling is an adjunct or *vice versa*, and the creosoting process also exhibits great engineering ingenuity. Sir S. B. Boulton's share in this work is recognised by the conferment on him in 1884 of the Telford Medal of the Institution of Civil Engineers, of which he is an Associate. He has long taken a keen interest in Chamber of Commerce work, and is closely identified with the London Chamber and has been president of the West Ham one. He is also active in social work, and is Lord of the Manor of Totteridge and Deputy Lieutenant of Hertfordshire. It will be remembered that a few weeks after the Canadian visitors' reception at Windsor Castle by the King, they went straight to Copp'd Hall, Sir S. B. Boulton's residence at Totteridge.

Among the new knights are several doctors—Professor T. McCall Anderson, M.D., Glasgow, a dermatologist of European reputation, T. F. Chavasse, M.D., F.R.C.S.E. & L., of Birmingham, and W. J. Smyly, M.D., of Dublin. Two chemists are similarly honoured—viz., Dr. Boverton Redwood and Colonel S. A. Sadler, M.P.

Sir Boverton Redwood, F.R.S.E., F.I.C., F.C.S., is the eldest son of the late Professor Theophilus Redwood, Ph.D., of the School of Pharmacy, and was born in London in 1846. His Christian name recalls the family place at Boverton, Glamorganshire, where Thomas Carlyle visited the new knight's grandfather. Sir Boverton Redwood had his schooling at University College School, and his chemical training under his father at Bloomsbury Square. He has

long been intimately associated with the subject of petroleum, in which he is the leading British authority, has written books about it, and, with the late Sir Frederick Abel, fixed the present flash-standard of lighting-oils. He is adviser to the Home Office on this subject. Sir Boverton Redwood is a past Chairman of the London Section of the Society of Chemical Industry.



SIR BOVERTON REDWOOD.



SIR S. A. SADLER.

Sir Samuel Alexander Sadler, V.D., has been a Fellow of the Chemical Society since 1868. He is head of the Middlesborough chemical-manufacturing company which bears his name, and he got his chemical training in University College. In Middlesborough he is well known and respected, for he was a member of the Town Council for thirty years, and Mayor twice. Half the spare time in his life has been spent in the Volunteers as an officer of the 1st Vol. Batt., Durham, of which he was Lieutenant-Colonel for twenty years and has been Hon.-Colonel since 1896. He contested Middlesborough several times in the Conservative interest before he was returned in 1900. He was a member of the Industrial Alcohol Committee.

Mr. Henry Birchenough receives a C.M.G. "for services as Special Commissioner to inquire into and report upon the position and future prospects of British trade in South Africa."

## Business Changes.

MESSRS. LETCHFORD & Co. have removed from 63 Wilson Street, Finsbury, to 55 Mare Street, Hackney, N.E.

MR. T. B. GOUNGER, chemist, has purchased Messrs. Frost & Harrison's business at 3 Eltham Road, Lee Green, S.E.

MR. A. OWEN, chemist and druggist, has taken over Mr. H. Elborne's drug-stores at 209 High Street, Tooting Graveney, S.W.

BOOTS, LTD., announce that new branches will shortly be opened at 285-287 Kentish Town Road, N.W., and at 113 High Street, Guildford.

MR. F. MEDLEY, chemist and druggist, of Bridgehouses, has acquired the business of Mr. Charles P. Camm, at 500 Barnsley Road, Sheffield.

MR. J. T. PALMER, chemist and druggist, 22 The Common, Woolwich, has sold his business to Mr. F. E. Simpson, chemist and druggist.

MR. F. ROBINSON, chemist, Moss Side, Manchester, has disposed of his branch business in Embden Street, Greenheys, to Mr. J. W. Horn, chemist and druggist.

MESSRS. J. W. PINDAR & Co., druggists' engineers and trolley makers, have removed their works from 7 Pocock Street, Blackfriars Road, to Brockley-Tips, London, S.E.

MESSRS. WILSON, JONES & Co., manufacturing chemists and wholesale druggists, have removed their laboratory and business from Victoria Road, Shelton, to 95A Stafford Street, Hanley, where, in addition to their wholesale business, they will carry on a cash retail drug-store.



## Pharmaceutical Society of Great Britain.

### COUNCIL-MEETING.

THE chief business at Wednesday's Council-meeting was the statement by the President of the results of the recent deputation to the Board of Agriculture in regard to the sale of agricultural poisons. The President reported that the Board of Agriculture is impressed with the views that have been put before them by the agriculturists, but that any legislation that may result will not affect chemists. The licences which it is proposed to provide by the Bill would only be granted to unqualified traders where there is no chemist, and the granting of licences would be hedged round with many restrictions. A legacy of 100*l.* has been received for the Benevolent Fund from the estate of the late Mr. Charles Virgo, of Worcester. The Benevolent Fund Committee granted 75*l.* in relief of seven applicants. The Jacob Bell scholarships were awarded to Mr. Matthew William Bell and Mr. Charles Herbert Hampshire. The Manchester scholarship was won by Mr. Arthur Knowles. In the report of the Parliamentary Committee it was stated that the Pharmacy Bill is only abandoned for the present Session. The Liverpool Chemists' Association have made an application for a grant from the Society towards the upkeep of the amalgamated Schools of Pharmacy at Liverpool.

At the Council-meeting held on July 5 at 16 Bloomsbury Square, W.C., there were present: The President (Mr. R. A. Robinson), Vice-President (Mr. J. R. Young), Treasurer (Mr. Walter Hills), and Messrs. Atkins, Campkin, Cooper, Cross, Currie, Gifford, Gibson, Hagon, Harrington, Newsholme, Park, Hobbs, Southall, Symes, and Wootton.

The minutes of the previous meeting were read and confirmed, and a letter was read from Mr. F. J. Hanbury, in which Mr. Hanbury said it would give him great pleasure to take office as an auditor. Mrs. Yates and family wrote thanking the Council for their vote of sympathy. Mr. J. W. Castle, of Dinneford & Co., New Bond Street, W., wrote asking the Council to excuse Mr. Carteighe from attending the Council-meeting, and the President took occasion to express the sympathy of the Council with Mr. Carteighe in the great loss he had sustained in the death of his wife.

### ELECTIONS AND RESTORATIONS.

Elections of members and student-associates then took place, as well as restorations to the Society and register of chemists and druggists.

### FINANCE.

Mr. HARRINGTON, as Chairman of the Finance Committee, moved the adoption of the report, which showed the following balances:

General Fund account	...	...	£	s.	d.
Benevolent Fund—					
Current account	...	...	744	13	1
Donation account	...	...	111	13	6
Orphan Fund	...	...	19	17	5

The following were the items submitted for payment:

On behalf of the "Journal"	...	£	s.	d.
Sundries	...	550	2	1
House	...	80	16	6
Stationery, etc.	...	31	7	0
Current expenses	...	22	4	6
Salaries, etc.	...	200	0	0
School and examinations	...	283	6	8
	...	68	17	8

£1,236 14 5

Mr. Harrington called attention to a legacy of 100*l.* received from the executors of the late Mr. Charles Virgo, of Worcester, for the Benevolent Fund. Mr. Virgo, he said, was for many years a local Secretary of the Society,

and took great interest in the work of the Benevolent Fund.

The report was adopted.

### BENEVOLENT FUND.

The report of the Benevolent Fund Committee was next considered in committee, after which the Chairman of the Committee,

Mr. ATKINS, in moving its adoption, said that ten cases were considered and in seven relief was granted. The grants amounted to 75*l.*, including 3*l.* from the casual fund in a special case. He said it should be understood by applicants for relief and by those who signed the applications that the Committee cannot make grants from the Benevolent Fund to put men into business or to patch up a business. Grants cannot be made to pay debts.

The report was adopted.

### L., M., S., AND H. COMMITTEE.

The report of the Library, Museum, School and House Committee was next presented by Mr. WALTER HILLS, the Chairman of the Committee. Among the items in the report was a recommendation that the Curator be given permission to attend the meeting of the Museums' Association at Worcester, and that 5*l.* be granted him towards the expense. The Committee laid down a general rule that the Librarian and Curator be granted permission to attend the Library Association and the Museum Association's meetings on alternate years. A bill from Messrs. Parkinson for 3*l.* 14*s.* 6*d.* was approved of. In regard to school matters, the professors are to report as to the apparatus and diagrams in their charge to the October meeting of the Committee instead of in July as heretofore. The selection of a person to deliver the inaugural sessional address in October was considered and referred to the President. It was mentioned also that Dr. Crossley had been allowed to publish a preliminary report of the experiments which he and Miss Renouf have been carrying out in the research laboratory.

The report was adopted.

### ORGANISATION.

The PRESIDENT, as Chairman, presented the report of the Organisation Committee. Mention was made in the report of the Bristol meeting on June 22, and of visits paid to Preston, Blackburn, Darwen, Great Harwood, Padiham, Nelson, Burnley, Accrington, Eccles, Manchester, Warrington, and Huddersfield. A suggestion that the Society should be affiliated with the National Chamber of Trade was negatived, as it was felt that the Society could not with propriety become affiliated directly with an association of unregistered persons. It was decided to hold the district meeting at Brighton at 2.30 p.m. instead of at 12 noon, so as not to interfere with the Federation meeting.

The President said the work of organisation was going on with activity and, he believed, with success.

The report was adopted.

### SCHOLARSHIP AWARDS.

The report of the examiners for the Jacob Bell and Manchester Scholarships was next taken. The examinations were held on June 20. There were fourteen candidates for the Jacob Bell scholarship—seven in London, six in Manchester, and one in Edinburgh. The minimum number of marks that must be obtained by successful candidates is 267. Two candidates obtained more than this number—Matthew William Bell and Charles Herbert Hampshire—and the examiners recommend that they be awarded the scholarships. For the Manchester scholarship there were two candidates, the successful one being Arthur Knowles.

The PRESIDENT, in moving that the report be received and adopted, said it was right to add that some alterations are suggested in the manner of apportioning the marks to the candidates.

The VICE-PRESIDENT said the matter was to come before the next meeting of the Education Committee. What was desired was a redistribution of the power of marks attached to the subjects.

The report was adopted and the awards made as suggested.

The SECRETARY mentioned that Mr. Knowles had intimated his desire to take his course of study at the school of pharmacy attached to Owens College, Manchester.

The desire was acceded to and a vote of thanks passed to the examiners (Messrs. Pinches and Stamp).



The TREASURER asked how many candidates for the Jacob Bell scholarship obtained more than the minimum number of marks.

The SECRETARY : Nine.

The TREASURER : That is very satisfactory.

The staff of the Society's school were reappointed, after which the Secretary read the report of the

#### PARLIAMENTARY COMMITTEE.

The report stated that the Pharmacy Bill had been dropped and that the Chairman (Mr. Wootton) brought to the notice of the committee the Dental Companies Bill and the Prohibition of Medical Practice by Companies Bill. It was resolved that the Chairman should place himself in communication with the promoters of those Bills.

Mr. WOOTTON explained that the Pharmacy Bill had been abandoned by Mr. Lough because there was no chance of getting to the second reading owing to there being so much opposition to the Bill. The committee are going to get in touch with the promoters of the two Companies Bills mentioned to see if the Bills could be made of any use to chemists. Mr. Wootton further explained that the Pharmacy Bill has only been abandoned for this Session.

The report was adopted.

#### THE AGRICULTURAL POISONS DEPUTATION.

The PRESIDENT said that would be a convenient opportunity to refer to the deputation from the Society that waited on the President of the Board of Agriculture on Monday in reference to the proposed relaxation in the conditions guarding the sale of poisons. The deputation, consisting of Mr. Wootton, Mr. Cross, and himself, were received by the Hon. Ailwyn Fellowes, with whom were a clerk from the Privy Council, Dr. Thorpe, and the Permanent Secretary of the Board. Mr. Fellowes listened with care to the arguments that were put before him. The deputation endeavoured to show that there was no urgent public necessity for any change in the present conditions guarding the sale of poisons—no genuine demand had come from farmers. The agitation has been got up by those persons who make preparations and want to sell them indiscriminately. He (the President) hoped that the arguments of the deputation would at least make the President of the Board of Agriculture pause before he proposes to make changes in the principle of the Pharmacy Acts. He (the President) was, however, bound to report that the President of the Board of Agriculture is evidently impressed by the views that have been put before him by the agriculturists. The reports of the deputation in the daily papers give the impression that there is to be immediate legislation on the matter, but, as far as he could judge from what took place at the interview, there is no prospect of a draft Bill being ready this year. Mr. Fellowes had before him a copy of the draft Bill prepared last year, and, quoting from it, showed that the granting of poison licences to unqualified persons would be hedged in with great safeguards. Licences would not be given unless found necessary, and if there was a chemist in the neighbourhood the necessity would not arise. The sale of poison would also not be allowed by traders who sold food, and a separate cupboard would have to be provided for the poison. The Minister thinks that these restrictions would adequately safeguard the sale of poisons. "But," said the President, "the difficulty is that the principle of special qualification for the seller of poisons, as laid down in the Pharmacy Act, 1868, would be departed from." The Minister also gave the deputation the impression that they did not appreciate the strength of the demand that exists for relaxation from the other side. It was well that the deputation went, continued the President, as "now we know where we are." No action will be taken this year at least, which leaves the Council some time for considering the question. Mr. Fellowes told the deputation that no harm would accrue to chemists from the changes, but he (Mr. Fellowes) does not seem to appreciate that if once the principle of the Pharmacy Act is broken down there is no knowing where the mischief will stop. He (the President) hoped that the views of the deputation would have due weight with His Majesty's advisers before the proposals were brought before the House of Commons. The House of Commons, he knew, would be much opposed to allowing the sale of poisons to be more free than at present. Coroners and others

throughout the country would view with alarm any relaxation of the regulations which at present guard the sale of poisons.

Mr. ATKINS said he was glad Mr. Cross accompanied the deputation, as he is an authority on agricultural questions. If the Council gives up the line of defence which the President has outlined they would inflict a most serious mischief on the chemists throughout the country. Those who have dispensing businesses have little idea of the extent of the business of country chemists in agricultural poisons. At Bristol recently he (the speaker) came across men of great experience and authority who did a large trade in these articles, and he was sure that if the barrier which guards the sale of poisons was removed there would be a deluge afterwards. The leaning of the Minister towards a third section of the poison schedule could not be viewed but with considerable apprehension. He (the speaker) hoped that before the proposals were made many things would happen to turn the tide in favour of chemists.

Mr. WOOTTON, after congratulating the President on the very able way in which he had summarised the work of the deputation, said he thought it a considerable advantage to have placed the Society's views before the President of the Board of Agriculture, although not much impression was made. If the Society had not sent a deputation it would have seemed to have acquiesced in the views of the other deputation. He hoped the Society would be able to prevent any alteration in the present practice. It is (Mr. Wootton added) a distinct advantage to have got a public statement from Mr. Fellowes as to the strict conditions upon which the Bill will be drafted—if it is brought in at all. In large centres there would be no possibility of any person being licensed.

Mr. CROSS said he was glad to have been one of the deputation and so to learn what was in the mind of the Department. Chemists in the country who have to carry out Acts of Parliament know the weakness of the suggestion of putting more work on the already over-burdened county councils. To entrust the councils with the licensing of poison-sellers would open the door to abuses, and when such regulations are introduced there will be an outcry from the country such as cannot be ignored.

Mr. HOBBS saw considerable danger in relaxing the restrictions on the sale of poisons. He thought it would be well to caution chemists not to be alarmed that this will be done. The Council is fully aware of what can be done to prevent the restrictions being relaxed, and is closely watching the interests of chemists.

The TREASURER spoke appreciatively of the work of the deputation, and said that although he had been asked to form one of the deputation he wished to be excused, on the ground that he had recently been a member of the Departmental Committee on Poisons. Knowing also that the President saw eye to eye with him on this matter, there was less necessity for his attendance. He wished to say that, although he had tried to act judiciously whilst a member of the Committee, he had seen nothing since to alter the opinions he then expressed.

Mr. CAMPBELL said the action of the Council in sending a deputation would be cheering to their friends in the country, and cause greater interest in the work of the Society. A policy of vigilance is one that will secure the support of chemists. There does not seem to be any possibility of legislation in the present or next Session. The one great question with the Government seems to be to arrange to go to the country with some definite principle. The work of the deputation would be a useful subject in the organisation campaign, and would bring the work of the Society to a position that will be more thoroughly understood by the great majority of chemists. The large trade in agricultural poisons is hardly realised by chemists in the great centres.

Mr. CURRIE reminded the Council that this was essentially a Scotch question. The opposition to the present method of selling poisons came very largely from the North. The Executive of the Society at its last meeting resolved to send a deputation to confer with the Scottish Chamber of Agriculture. Chemists in Scotland are not prepared to give way on any point. (Hear, hear.) Nothing but the education of the vendor will ensure the safety of the public. It would be a breach of faith on



the part of the Government to mutilate the conditions of the Pharmacy Act, 1868.

Mr. GIFFORD, referring to the Medical and Dental Companies Bills, said he noticed that they were to be presented for second reading that day. Whilst fully appreciating the action of the Council in sending a deputation to the Board of Agriculture, he said they should be active in these matters as well.

The PRESIDENT: You will notice that the Parliamentary Committee have that matter in hand.

#### THE MIL SUGGESTION.

The PRESIDENT said the editor of the "Journal" (whom he congratulated on his recovery) had handed him a letter from Mr. Chaney, of the Standards Department of the Board of Trade, which stated that the suggestion of a mil, decimil, and centimil has been brought before the Comité International des Poids et Mesures.

#### NO HERBARIUM PRIZE.

Professor Reynolds Green reported that only one herbarium was received in competition for the herbarium prize, and as it does not come up to the Society's standard he is unable to advise that an award be made.

The report was accepted with regret.

#### GENERAL PURPOSES COMMITTEE.

The report of the General Purposes Committee was then read. In regard to the consideration of a uniform practice to be adopted in the sale of poisons suggestions were sent by the President, Mr. Wootton, and Mr. Hobbs. These were deemed so important that the committee decided that they be formulated and distributed to each member of the committee for further consideration. The suggestions for increasing the membership were also considered, but the committee are not prepared to make any change. Mr. Flux advised the committee that the Society had the power to enforce the return of membership certificates from the relatives of deceased members.

The PRESIDENT, referring to the action of the committee in regard to the sale of poisons, said they were all seized with the fact that uniformity in practice in the sale of poisons is desirable. It was felt on the membership question that it should be looked upon as a privilege to belong to the Society, and that young men should see that it is to their interests to support the Society. The council are willing to concede anything in reason, but they do not propose to place this great privilege before those who take no steps themselves.

The report was adopted.

#### LETTERS.

The Assistant-Secretary in Scotland communicated the result of the election of the Executive of the North British Branch and the names of the Chairman and Vice-Chairman for the ensuing year.

Mr. Cummings, of Dundee, sent a resolution passed at a meeting of the Forfarshire Chemists' Association approving of the action of Dr. Symes in giving notice of motion *re* the sale of poisons.

A letter was also received from the Liverpool Chemists' Association signed by Mr. Prosper H. Marsden and Mr. Harold Wyatt, calling attention to the amalgamation of the Liverpool Schools of Pharmacy and asking for the financial support of the Pharmaceutical Society. Two-thirds of the guarantee fund had been collected locally, and it was hoped that the Society would make as large a grant as possible seeing that Liverpool was the first provincial association to appeal for assistance for a school of pharmacy.

The letter is to be considered by the Educational Committee.

The Foreign Office sent an invitation to appoint a delegate to the International meeting on Colonial agriculture at Nogent-sur-Marne, which had been received through the Ambassador in Paris.

The request, it was pointed out, was too late, as the meeting is now taking place.

The Edinburgh Chemists' Trade Association thanked the Society for the use of the premises in Edinburgh for meetings.

The President of the Chemists' Assistants' Association wrote asking permission to use a room at the Society's

premises for Association meetings. It was pointed out that the privilege was already granted to Edinburgh assistants, and a similar concession would be greatly appreciated by London assistants.

The House Committee are to consider this application.

This was all the public business.

## P.A.T.A. and C.D.A. Annual Reports.

THE draft of the ninth annual report of the Proprietary Articles Trade Association refers to the very satisfactory rate of progress as being more than maintained. The increase in membership in the manufacturers' section has been forty-four, the total membership of this section being now 190. The wholesale section numbers twenty-two houses. The retail section also shows considerable increase, 1,007 new subscribers being added in 1904. This section is not, however, as large as it should be. The Reading Association is thanked for the efforts it has made on behalf of the Association, as are other local organisations. Referring to the cutting of P.A.T.A. articles it is stated that the prices are maintained without any trouble to the proprietors, and every opportunity is taken to secure that when a P.A.T.A. article is asked for it shall be handed over the counter without any attempt to sell something in its place. In regard to the co-operative stores difficulty, many meetings have been held and negotiations are in progress with manufacturers of price-protected articles in other trades with regard to some concerted action. The Year-book of the Association has increased in size, and now contains a classified list of members. Mention is also made of the committees that dealt with the New Zealand Proprietary Medicine Regulations, Railway Rates, and Registration of Firms Bill.

#### THE FINANCIAL STATEMENT

shows a cash balance of 613*l.* 4*s.*, the receipts being subscriptions 1,750*l.* 5*s.*, donations 15*l.* 7*s.*. Year-book (balance of account) 6*l.* 0*s.* 11*d.*; these, with the balance brought forward from last year (249*l.* 17*s.* 6*d.*) and interest (5*l.* 8*s.* 2*d.*), making a total of 2,033*l.* 18*s.* 7*d.* This is balanced by payments for salaries, printing, postage, "Anti-cutting Record," etc., amounting to 1,420*l.* 14*s.* 7*d.*, leaving the balance mentioned above of 613*l.* 4*s.*

The report of the Chemists' Defence Association, Ltd., records an addition of 380 members during the year, the membership being now 2,830. A list is given of the items upon which legal advice was sought, as well as the claims for damages which the Association have satisfactorily settled. The police-court cases are noted, and it is stated that in several of the cases no conviction followed, and in none of the others was a heavy fine imposed. In almost every instance where there was a conviction the Magistrates, in imposing a small penalty, stated that in view of the evidence given and the defence made they were convinced that there had been no intention on the part of the defendants to defraud the public. After referring to the free analyses conducted for members and advice given on the Medicine-stamp Acts, it is stated that a considerable number of members continue to pay the 10*s.* 6*d.* subscription, but that there is evidence that a larger number will pay the guinea fee and so secure the higher scale of protection.

#### FINANCIAL.

The receipts and payments account shows that 1,309*l.* 14*s.* has been received in subscriptions, and for plate-glass insurance 16*l.* 13*s.* 5*d.*; this, with interest and a balance of 73*l.* 4*s.*, brings the receipts up to 1,404*l.* 19*s.* 7*d.* The credit side includes a balance of 448*l.* 15*s.* 8*d.* from last year, the other items being for legal charges, salaries, etc. It is further shown from the balance-sheet that the adverse balance from last year of 596*l.* has been reduced to 47*l.* 0*s.* 8*d.*

The annual meetings of the two Associations are to be held at the Holborn Viaduct Hotel on July 19.

The exports of coriander, caraway, anise and cumin seeds from Tangier, Larache, and Tetuan during 1904 amounted to 443 cwt., compared with 1,464 cwt. during 1903.



## British Pharmaceutical Conference.

### The Brighton Meeting.

THE members of the local Committee met in the house of Mr. W. H. Gibson, F.C.S., their Chairman, last week, and spent several hours arranging many details for the reception of members from various parts of the country, a few of whom will begin to arrive at Brighton on Saturday, July 22, but most of them on Monday, July 24.

Brighton is looking its best just now, the sea being particularly inviting to those who like a dip in the briny, and as Mr. Gibson is Chairman of the West Pier, where the arrangements for bathers are excellent, and admit bathing up to 1 P.M., he will be able to give them points. Those who prefer to bathe under cover have the advantage of free entrance to Brill's Baths, of which Mr. W. W. Savage, Hon. Local Secretary, is a director. There is also a good bath at the Royal Hotel, for which the charge is 1s.

On the Tuesday afternoon tea is to be served on the upper or pavilion terrace of the West Pier, which will be reserved solely for the party after the return from Booth's Museum of British Birds, which none should fail to see, for it is a magnificent collection.

Alderman F. Blaker and Mrs. Blaker have issued their invitations for a reception at the Royal Pavilion on Monday, July 24, at 8.30 P.M. Mr. H. J. Franklin, Chairman of the Dance and Concert Committee, informs us that the whole of the Pavilion rooms will be thrown open by the Mayor, and the Committee have made arrangements for the illumination of the grounds. There are few prettier night effects than these lovely grounds lit up on a fine evening with coloured lights. The windows at the back of the Pavilion are large and of the door type, so that if weather permit one can go out and in as fancy pleases. There will be a dance as well as music, the card being as follows:

#### RECEPTION.

##### Programme of Music.

##### ROYAL MARINE ARTILLERY.

1. March "Royal Guards."
2. Overture "Les Deux Magots"
3. Selection "Lady Madcap"
4. Violin Solo "Hejje Kati"  
Sergeant L. D. V. Moore.
5. Selection "Veronique"
6. Song "Sing me to Sleep"
7. Selection "The Catch  
of the Season"

Madame Ennis Carmen will sing during the evening.

#### DANCES.

1. Valse "Moonlight on  
the Rhine"
2. Valse "Donan Wellen"
3. Lancers "Veronique"
4. Valse "Caressante"
5. Polka "La Poupée"
6. Lancers "Oh! Sammy"
7. Valse "Frou Frou"
8. Valse "Three Little  
Maids"
9. Barn Dance "Down  
South"
10. Lancers "The Cingalee"
11. Valse "Duchess of  
Dantzic"
12. Pot Pourie Valse "Tor-  
eador," "Des Clowns,"  
"John Peel"

The Mayor and Mayoress will have a party of about one hundred and fifty, consisting of the Councillors and their wives, and local authorities, so that with Conference members 500 or more may be present.

The concert to be held in the Hôtel Métropole on Tuesday evening is to be good. It is under the direction of Mr. W. A. Lauder, and Brighton and London artistes will contribute—viz., Miss Lita Jarratt (piano), Miss Evelyn Padwick, Miss Maud Foreshaw, and Messrs. W. A. Lauder and Barclay Gammon. Mr. Franklin informs us that there will be a dance in an adjoining room while the concert is going on, and on Wednesday evening an impromptu smoking-concert will be arranged after the return from Eastbourne.

Here is a little note that we extract from Mr. Franklin's letter:

"It cannot be too widely known that arrangements at all the hotels may be made, on the same terms, for those wishing to prolong their stay—viz., at 7s. 6d. per day, including bed, breakfast, and attendance—and we can only assure all those who make this their holiday that they will have a good time."

All applications for accommodation should be addressed to Mr. W. W. Savage, 109 St. James's Street, Brighton, and for books of tickets to Mr. C. G. Yates, Upper Hamilton Road, Brighton.

The technical part of the Conference arrangements begins at the Hôtel Métropole on Tuesday morning at ten o'clock, when, after the Mayor's welcome, Mr. W. A. H. Naylor, F.I.C., F.C.S., will deliver his presidential address. It will, we feel sure, sustain the President's reputation as a practical pharmacist.

\* \* \*

The papers promised for the meeting are not so numerous as usual, but, as mentioned elsewhere, Tuesday afternoon will probably be devoted to a discussion on the changes and innovations of the new United States Pharmacopœia. There will be at least two communications on this—viz.:

Essential oils of the United States Pharmacopœia. By John C. Umney, F.C.S., and Charles T. Bennett, F.C.S.

Standardisation in the new United States Pharmacopœia. By Thomas Maben, F.C.S.

Amongst the other papers promised are the following, whose authors we do not as yet know:

A note on the analysis of tinct. camph. co.

The ash of myrrh gum.

Compound tincture of gentian.

Further notes on radio-activity.

Concentrated infusions.

Arsenious iodide.

The chemistry and pharmacy of the leaves of *Viola odorata*.

Mercuric zinc cyanide.

Amateur laboratory construction.

The flora of Sussex.

Letters in regard to these or other communications which researchers may desire to make should be addressed to either of the Hon. General Secretaries—Mr. E. Saville Peck, M.A., Ph.C., 30 Trumpington Street, Cambridge, and Mr. Edmund White, B.Sc., Ph.C., 16 Cross Street, Hatton Garden, London, E.C.

## Association Ballads.

### THE PURPOSE.

*The men, their aims, their daily irk;  
Their troubles, trials, thoughts, and views  
On things politic, foes that lurk  
In friendly guise, but treach'rous work—  
These be the burden of our Muse.*

### LXV. WOMEN PHARMACISTS.

WE thought ourselves creation's lords,  
And pride had made us flighty;  
Omniscience smug joy affords,  
And makes one high and mighty.  
We thought that winsome ladies all  
Lived but for love and kisses:  
We'd overlooked the Gordon Hall  
And Presidential Mrs.

The mere male person who aspires  
To have his honours fixed, he  
Must pale his ineffectual fires  
Before the valiant Sixty;  
Their cleverness will give him pause,  
And he's a nincompoop or  
He'll homage pay to Hilda Caws  
And kneel to Elsie Hooper.

The ladies are true pharmacists,  
All high-up-on-the-list-ers;  
They need no patronage, I wist,  
Our new-found pharma-sisters.  
They know how all our work is done,  
They grace the Evening Meeting;  
They're full of pluck, and I for one  
Bow down and give them greeting.

But of one thing they must beware:  
They ne'er must be "disloyal,"  
But gaze quite blindly on the Square,  
And walk the road that's "royal."  
To please yourself's a dreadful sin,  
And strictly is forbidden;  
So tremble at the Bloomsbury Djinn,  
Or sorely you'll be chidden.

### MORAL.

Can good to anyone result  
When Popgun shoots at Cannon?  
Remember that when you consult  
Your future, Miss Buchanan.  
The arrows of unkindly fate  
May hit and make us dizzy,  
But one must aye discriminate  
Twixt Margaret and Lizzie.



## Personalities.

It is reported that Sir James Haslett, M.P., is now in a very low condition with little hope of recovery.

MR. JOHN LAWSON, pharmaceutical chemist, of Dublin, has been appointed general manager of "Daisy," Ltd., Leeds.

DR. W. H. INCE, F.I.C., son of Mr. Joseph Ince, A.K.C., F.L.S., has been appointed research chemist to the Government of Western Australia.

DR. W. H. NICHOLS, President of the Society of Chemical Industry, has been much entertained in London this week, and on Saturday evening will give a dinner in the Café Royal.

At Lancaster Quarter Sessions on July 3, Mr. John Robert Birkett, chemist and druggist, Mayor of Morecambe, was sworn in as a Justice of the Peace for the county.

PROFESSOR C. F. CHANDLER, of Columbia University, New York, is now in London, having come to support his fellow-citizen Dr. Nichols in the Society of Chemical Industry functions.

MR. J. L. HOLDEN, who was with Messrs. Mottershead & Co., Manchester, until the beginning of this year, is now manager of Messrs. Sharland & Co.'s photographic department (wholesale and retail) at Wellington, N.Z.

MR. F. G. C. WALKER, pharmaceutical chemist and senior demonstrator in chemistry at the School of Pharmacy, has obtained an appointment under the Municipal Council of Shanghai, and leaves England in August. Mr. Walker was a Bell Scholar in the session 1902-3.

MR. THOMAS TYRER has received from the Manchester Chamber of Commerce an appreciative vote of thanks for his services in connection with the Industrial Alcohol inquiry. This is not the Mr. Thomas Tyrer who took out a patent for a watch in 1782. Perhaps, his great-grandfather.

MR. W. C. BRINSON (of Messrs. Evans Sons Lescher & Webb, Ltd.) entertained at his house, "The Laurels," Chesterfield, last week, about 120 members of the Trinity Church, of which he is a churchwarden. The garden-party was favoured with glorious weather and was an immense success.

MR. GEOFFREY CHESHIRE, formerly of Messrs. Cheshire & Rankin, Melbourne, arrived in England last week, on a visit to the Old Country. Mr. Cheshire is an old Muter's man, having passed the Minor from the South London College, and the purpose of his visit home, after intimate experience of the Australian drug-trade, is to secure a few agencies for the colonial markets.

An interesting event took place in the board-room of Messrs. Idris & Co., Ltd., at Pratt Street, Camden Town, N.W., in the presence of Mr. T. H. W. Idris, Mr. Adpar Jones, and Mr. E. K. Bishop (directors of the company), on July 1, when Mr. Charles Barber was presented with a gold watch, in recognition of his having completed twenty-five years' service with the company as one of the van travellers. The presentation was made by Mr. Idris.

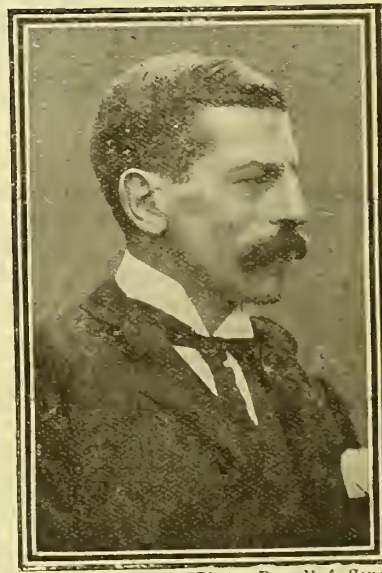
MR. GEORGE WATKINS, President of the Queensland Board of Pharmacy, is now on a visit to this country, and we had a call from him this week. Mr. Watkins has been connected with the Board for seventeen years, and examines in botany and materia medica. We took the opportunity of his call to extract some information from him in regard to the prospects of getting regular supplies of the oil of *Backhousia citriodora* from Queensland. Mr. Watkins knows the shrub well, and tells us that it grows on certain limited areas in the State, and could be cultivated, but the supply would altogether depend upon the price which would be realised for the oil, and that brings in the labour difficulty. They have to pay as much per hour for labour in the State as is paid per week in Ceylon. This is the difficulty in the way of agricultural and similar pursuits; but in time he believes the difficulty will be solved. While in England Mr. Watkins hopes to see the Board of Examiners at work, and he will probably attend the B.P.C. meeting at Brighton. He is Treasurer of the Queensland P.A.T.A., and will doubtless learn how its parent does things here.

MR. JOSEPH ALLEN BAKER, Chairman of Joseph Baker & Sons, manufacturing engineers, Willesden (the makers of the well-known pharmaceutical sieves, etc.), was, on June 29, returned by a majority of 768 as Liberal member for East Finsbury. Mr. Baker is descended from an Islington Quaker family, who first settled in Ireland and then emigrated to Canada, where he was born in 1852. The extension of the engineering business of the family made it advisable to remove their manufacturing centre to London. Mr. Baker came to England as the firm's representative. In 1895 Mr. Baker succeeded Lord Rosebery as representative of East Finsbury on the London County Council, and during his membership, since that date, he has been one of the leading figures in the development of municipal electric tramways in London, and in improving slum areas.



MR. J. ALLEN BAKER, M.P.

THE HON. AILWYN EDWARD FELLOWES, M.P., President of the Board of Agriculture and Fisheries, who received a deputation from the Pharmaceutical Society of Great Britain on Monday, is the second son (born 1855) of the first Lord de Ramsey, and has represented the Ramsey division of Hunts in the Conservative interest since 1887. He was educated at Eton and Trinity Hall, Cambridge. He had ten years' experience as a Government Whip (his official offices being Vice-Chamberlain and Junior Lord of the Treasury), and succeeded Lord Onslow at the Board of Agriculture, when Mr. George Wyndham's resignation of the Irish Secretaryship caused a reconstruction of the Government. Mr. Fellowes' place is Honingham Park, Norwich, and he owns 4,200 acres. His wife is a daughter of the second Lord Hylton.



[Photo. Russell & Sons.]

MR. A. E. FELLOWES.

## Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.), will be esteemed.

19/91. Makers of Kennedy's ointment.

1/4. Who are the makers of iodised stramonium cigarettes?

2/18. Name of proprietors or where to obtain Dodd's bone ring gum soother.



## Observations and Reflections.

By XRAYSER.

### The New Company Bills

dealing with medical and dentists' companies may be regarded as hopeful signs for ourselves, inasmuch as they help to make the running towards a Select Committee which must some day consider the whole subject of the relations of companies to professional qualification. It is not in the public interest that such qualifications should be exploited for the benefit of capitalists. From that point of view the Prohibition of Medical Practice by Companies Bill (which the draughtsman humorously describes as its short title), absolutely prohibiting the formation of companies purposing to make a profit out of medical practice, is simply just. The Dental Companies Bill I confess I cannot understand. Apparently it would permit a company of unqualified shareholders, controlled by unqualified directors, Whiteleys or Boots for example, to run a dentists' company, provided it employed qualified managers, assistants, or persons, one, I suppose, for each company, to "carry on" the business, that name to be posted outside the office. If this is a correct reading of the Bill I hope it will never pass.

### Dr. Berdoo

proposes a new and promising problem in dispensing casuistry which presents great possibilities of debate. Would it be presumptuous to treat the transaction of which he "was bound to complain" as a simple commercial one, and to judge it by a commercial standard? I am assuming that he does not suggest that there was any danger in the increased dose which the lady asked for, nor that the nice young man made any attempt to supplant the doctor's advice by his own. The lady it appears went to Dr. Berdoo, bought his advice, paid him for it, and did not choose to follow it exactly. Madam was foolish, no doubt, but the young man was not responsible for that. But the principal commercial element in the transaction was that he was supplying pills to the lady's order. If she had asked him to make up eighteen instead of the dozen ordered, might he not have done that? If she had told him that she intended to take a pill and a half for a dose instead of a single pill, should he, always assuming that no danger was incurred, have sternly refused to give her the opportunity of thus disobeying her medical adviser? If she had said: "Send a bottle of your iron tonic when you send these pills," must he have replied: "Madam, I cannot sell you any other medicine while you are under Dr. Berdoo's treatment"? He may have been indiscreet in view of future favours from the doctor, but I would like to see his misfeasance more clearly made out.

### The Liquozone Verdict

was in no way surprising. There was evidence to support it, and Sir Thomas Stevenson's obvious fairness and the scrupulous care of his investigation were sufficient to ensure it; but, after all, that verdict is of no value whatever as a scientific deduction. It remains on record that eminent authorities do not coincide with it and give undoubtedly strong reasons for their dissent. The Coroner stated the issue fairly enough to the jury, but it is hardly possible to read his summing-up without believing that the resulting verdict was not unsatisfactory to him. The question of the cost of Liquozone, for example, though a fair item in dealing with the general politics of nostrums, had not the remotest applicability to the question whether the

children died from it or not. Nor was it quite fair to suggest that sulphurous acid is a medicine which the regular profession had tried and found wanting. "Most of these [quack] remedies," said the Coroner (evidently including this one), "were revivals of medicines that doctors had cast off." It would not prove that the remedy was not a good one if that statement had been true in this instance; there are many medicines which doctors have discarded for no good reason for a century or two, but which have found appreciation among their more enlightened successors. But I do not trace any evidence that medical men have ever to any extent used sulphurous acid as an internal medicine, or that they had abandoned it because they had found it useless or dangerous. Nor is the statement any more correct in a general sense. The quack has far more frequently been the pioneer of new medicines than the reviver of old ones. If Dr. Wynn Westcott will turn to the work of which he is joint author, or to any official Pharmacopœia, he will find scores of formulas which are imitations or adaptations of secret remedies which had proved so successful that they could not be ignored. Our opiates, mercurials, antimonials, and arseniated medicines have nearly all descended from nostrums. So have quite half of our pills, tinctures, liniments, and confections. The orthodox medical profession has, indeed, done wonderfully little of its own initiative in the way of discovering or formulating new remedies. This important section of medical activity has been largely left to herbalists, pharmacists, quacks, red Indians, negroes, enterprising Americans, and learned Germans.

### Sulphur and Supplication

were the remedies which John Wesley found efficacious; and millions of good people both before and after the great Methodist have lived and died in the belief that sulphur was the specially ordained purifying element. Even at the present day there are many ignorant persons by whom a box of sulphur tablets or a bottle of compound liquorice powder (in which the sulphur is perhaps the most valuable ingredient) is regarded as their universal medicine chest. What modern physicians think of sulphur it is not easy to say. They have so many other substances with much more complicated names to experiment with that they cannot be expected to spend time on things which even Pliny knew. But brimstone and treacle, and still more sulphur dioxide, fit in with the germ theory, and the latter may yet have a famous future before it.

### The Liquozone Jury

urge that the authorities should appoint some Board or something which should investigate all patent medicines before they are placed on the market. Suppose the Home Secretary were to adopt that recommendation. Among the indirect consequences might be a war between England and America, and certainly the "Daily Mail" would revolt. But what about the "terms of reference"? If medicines were to be investigated, why not foods, and hair restorers, and red rubber, and paper-hangings, and the other thousand things in which danger lurks, and the other ten thousand things which are better genuine than sophisticated? Then as to the composition of the Board. If the doctors who claim a monopoly in all diseases got hold of it, they would veto everything; if less prejudiced persons controlled it, is it conceivable that a month ago they would have prescribed a compound like Liquozone when they were told that the corresponding preparation in the Pharmacopœia is nineteen times as strong? The Home Secretary might fairly reply to this jury that after spending twenty millions a year on education the people ought to be able to take some little care of themselves. Unfortunately, however, the effect of that twenty millions' worth of education is to play into the hands of advertisers. If the parents of those two Stoke Newington children had not been able to read they would not have given them Liquozone; and therefore, according to the verdict, the children would not have died.



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## Editorial Comments.

### "Their Association."

WE may be forgiven for thinking that the most interesting  
part of the reply by the President of the Board of Agri-  
culture to the Pharmaceutical Society's deputation was  
that in which he referred to the Society as an association.  
It indicates forcibly Mr. Ailwyn Fellowes's failure to  
appreciate the difference in position between the deputa-  
tion which called upon him a few weeks ago and the one  
which addressed him on Monday. It seems lamentable  
that almost forty years after the Pharmacy Act was  
passed, and its administration entrusted to the Pharma-  
ceutical Society in co-operation with the Privy Council, a  
member of the Government should not fully recognise that  
when the Society approaches him it does so as an integral  
part of the Government of the country, and is entitled to  
the fullest respect as the body experienced in the law  
which he proposes to meddle with. Mr. Fellowes seemed



to think that the Pharmaceutical Society is in some way in trading opposition to the last deputation he received, and it is apparent that he was unaware that the agitation of which that deputation was the expression is one of the worst type politically, since it is not representative of a class, but of several manufacturers, who want more freedom in selling poisons than their competitors are content with and the law permits. The majority of the manufacturers of sheep-dips have refused to participate in the agitation; for one reason, because they are satisfied that the Arsenic and Poison Acts do not interfere with the legitimate distribution of their products to users thereof. We are glad to notice that the President of the Pharmaceutical Society emphasised this fact, and he handed to Mr. Fellowes a printed statement, of which we may give an abstract. The statement commenced by pointing out that the Pharmaceutical Society is a chartered body invested with statutory powers, and quoted the Poison Committee's observations in regard to the addition of a third part to the Poisons Schedule. Then the argument proceeded as follows:

AGRICULTURAL POISONS were rarely used in 1868, said the Committee. This the Society denies, and no evidence was placed before the Committee on the point, and the Committee ignored the events connected with the passing of the 1868 Act. In 1863 the Privy Council inquired into the subject, and was informed by its officers that *the sale of poisons would not be put on a proper basis unless carried on by proper and competent persons*. This principle was confirmed by the evidence taken by a Select Committee of the House of Commons in 1865. The Pharmacy Bill, which was introduced to give effect to the Committee's Report, *did*, however, exempt poisons used in manufactures for technical purposes, and, moreover, omitted opium from the Schedule, but the *House of Commons, on the ground of public policy*, refused, by a majority of nearly two to one, to sanction any such exemption, and struck out the saving clause. The restrictions of the present Statute are, therefore, the result of Parliament's own action based upon a sense of responsibility. The conditions of 1868 have become more accentuated on account of the growth of pushful traders in poisonous specifics. The Pharmaceutical Society had to proceed against many of these traders, and one of the results was the formation of a Patent Medicine Vendors' Protection Society, which takes an energetic part in the present agitation. The opinion of Coroners goes strongly in the direction of increased restriction.

THE ADMINISTRATION OF THE LAW is said by the Poisons Committee not to be uniform. That, the Society replies, is more apparent than real. The Society has consistently performed its public work from a public, as opposed to a trading, point of view. At present an average of 300 or 400 cases are dealt with annually, and the public contributes nothing; but if the State had to create machinery to investigate even this number of infringements the Estimates would include a large additional item. Reference is also made to the favourite theme of Mr. Isaac Connell, "that things would be intolerable in Scotland if the Act were rigidly carried out there!" And this is regarded as "unwilling testimony to the intelligent administration of the law by the Pharmaceutical Society on public lines."

INCONVENIENCE TO FARMERS was another of the Poison Committee's deductions from the law as it stands, but the Society points out: No farmer was called to support the suggestion, and only one florist, who admitted that in his legitimate business he had experienced no difficulty in getting the preparations he required. This deficiency of evidence has since been largely remedied by the activity of Mr. Dobbs, a solicitor employed by an interested manufacturer. In regard to the statement that there are agricultural districts in Great Britain upwards of fifty miles from a chemist, careful investigation of a map charted for the purpose reveals the fact that there is no cultivated portion of the kingdom anything like that distance from a registered man. But, if there were . . . distance, from a licensed house does not entitle a farmer to distil his own spirit or to ask for a repeal of the Licensing Laws.

A THIRD SCHEDULE OF POISONOUS ARTICLES to be sold by others than trained persons would, the statement proceeds, be a retrogression. No mechanical devices of labelling can be an efficient substitute for the technical competence of the vendor, and there is a grave danger in now undoing the education of the public, in regard to the purchase of poison, which has been slowly going on for thirty-seven years. Anomalies would arise. What is an "agricultural purpose," and if it is to be

deemed safe to allow an unqualified man to sell 1 lb. of arsenic in a packet, why should it be deemed an offence if he sold  $\frac{1}{2}$  oz.?

GENERAL MISCONCEPTIONS.—In the course of the Privy Council inquiry, witnesses, and, indeed, members of the Committee themselves, continually referred to the restrictions of the Pharmacy Act as though the sale of every poisonous substance capable of being used in agriculture were confined to chemists. This inaccurate assumption should be dispelled. Only the articles mentioned in the Schedule are subject to restriction, and even those only when they are *retailed*. Another misrepresentation is that chemists are incompetent to give such advice in regard to the use of agricultural preparations as a seedsman could. Such a statement is simply absurd, having regard to the fact that every chemist has to pass a stringent examination in botany, and in many purely agricultural districts the chemist is the local scientific adviser on agricultural matters.

The members of the deputation gave ample corroboration of these statements, but Mr. Fellowes in his reply gave little heed to what they said, speaking for a body with statutory powers, which, after all, is the main thing he had to consider. It is, perhaps, excusable that Mr. Fellowes, who "owns 4,200 acres," should give first place to agriculture, and apparently he has not recognised in the resolutions which have poured into his Department the stereotyped motions which Mr. Dobbs has been so liberal in sending to Agricultural Societies; but we trust that in his quiet moments it may strike Mr. Fellowes that his Department is being made the tool of a few manufacturers and a country solicitor. In any case, he ought, without counter resolutions, to recognise that the administrators of the existing law are in a better position to advise him than such a congeries. That that advice is necessary is apparent from the remarkably mediæval scheme of regulations which Mr. Fellowes quoted as being in the Bill drafted by his Department and the Privy Council jointly. They seem oblivious to the fact that such proposals have to be submitted to Parliament, and that they are tantamount to abrogating several Acts of Parliament, restoring to the fullest the horrible conditions which prevailed when Parliament first legislated on this subject. It is a pity that there is little hope of the scheme being placed before the present Parliament, as the project would be squashed quickly.

## The U.S.P.

THERE has, we believe, been a good deal of grumbling in the United States about the delay in the publication of the eighth decennial revision of the United States Pharmacopœia. It is now published, and when the grumblers get it they should cease from troubling, for it has been worth waiting for. There is no question that in pharmacopœial matters American pharmacists show a thoroughness which is an example to the world; no detail seems to be too small for full consideration, and no aspect of retail pharmacy which may be affected by the Pharmacopœia standards is lost sight of. Yet there is an air of conservatism about the book and its contents which suggests that the compilers are not devoid of caution. Perhaps the best example of their willingness to wait in order to get things right is the monograph on antidiphtheritic serum, which is largely responsible for the delay. This matter had to be left to a small committee of experts, and it is a very, very cautious monograph they have provided, substantially that "the standard of strength, expressed in units of antitoxic power, should be that approved or established by the United States Public Health and Marine Hospital Service," and the containers should be labelled to that effect. This shows the limitations of pharmacopœial possibilities in the newer *materia medica*, but it is to be observed that the reference is strictly in accordance with the custom as regards botanical references: there is a point at which even the pharmaceutical expert must take



his materials on trust. We give as full a sketch of the new pharmacopœia as time and space have permitted. It comes into force on September 1, and will be purchasable before that in London from the J. P. Lippincott Co. We learn that a discussion of the Pharmacopœia will be made a feature at the Brighton meeting of the British Pharmaceutical Conference, when probably the whole of the Tuesday afternoon will be devoted to the matter. Mr. John C. Umney (the Hon. Treasurer) will communicate observations and criticisms on the essential oils and other monographs based on a critical examination of the tests by Mr. C. T. Bennett and himself; Mr. Thomas Maben will speak on standardisation in the Pharmacopœia, and doubtless others who have the opportunity of consulting the new work will take part in the discussion. In the meantime our notes upon it should be of service to all.

## Technical Education.

A LITTLE more than a year ago Lord Rosebery startled his fellow countrymen by calling for a Charlottenburg to be built in London, and a gift of not less than 100,000*l.* was offered by Messrs. Wernher, Beit & Co. as a starting-point in the equipment of a Higher Technical College of this character. Those who are familiar with technical education in this country know that there are in it practically all the elements of Charlottenburg, which is chiefly impressive because it is recent, under one roof (so to speak), and is devoted to the higher education. Our elements of this nature are in South Kensington, where the Royal College of Science and the Central Technical College are contiguous to each other and to the administrative department of the London University. The Government appointed a Committee to inquire into the matter, and it has this week issued a preliminary report, in which is outlined a scheme for the establishment in London of a great Technical School or College of Applied Science for the whole Empire, in which various branches of study would be specialised, and equipment and staff provided for the most advanced training and research. Such a scheme will require a long period for full development, and the Committee recognise this fact, but consider the present time favourable for making a beginning; and at the outset they propose to co-ordinate and treat as constituent parts of the proposed college all existing institutions, whether founded by the Government or by private associations, bringing these institutions into one scheme of common government and administration. South Kensington is recognised as the most promising site for the new college. What is intended is well shown in the following extract from the report :

We do not attempt in this preliminary report to draw up a detailed scheme, but the following principal subjects should be within the purview of the Institution :

As Preparatory Subjects.—Mathematics, physics, chemistry, and geology. Under the general heading of Civil Engineering.—Works of construction, mechanical engineering, electrical engineering, mining engineering, marine engineering, and naval architecture; some branches of chemical technology, and certainly metallurgy.

As illustrations of the kind of higher or more specialised application of these subjects, some of which we suggest should be dealt with, we need only mention the applications of engineering to railway, dock, and hydraulic work; the development of electricity in the direction of electric traction, lighting, and telegraphy, and electro-chemistry. It would be impossible to provide for the whole of the above subjects at once. Some of the more specialised subjects, such as the advanced metallurgy of iron and steel, and certain branches of manufacturing chemistry would probably be better dealt with in institutions which are, or may be, established in the provinces. Even, however, if the scheme be restricted by the exclusion of such subjects, its realisation would require at least the whole of the site still available at South Kensington, and great advantage would be obtained by grouping the first extensions immediately

round the nucleus provided by the Royal College of Science and Central Technical College.

We believe, however, that if the various London institutions concerned were willing to co-operate fully in the matter, and proper arrangements were made for co-ordination of the considerable resources already existing, the necessary special departments might be established early.

Specialised technical education is well provided for in the industrial centres of the country, and this is gradually forcing up greater numbers yearly to higher courses of instruction. This is best exemplified in the demands upon the resources of the Central Technical College, and the following abbreviated table from the annual report just issued shows the number of students taking courses of instruction such as those indicated in the above report :

Session	Civil and Mechanical Engineering Course	Electrical Engineering Course	Chemical Course	Special Courses	Total
1885-6	14	13	8	—	35
1890-1	57	75	12	22	166
1895-6	67	88	23	36	214
1900-1	117	99	20	41	277
1901-2	116	119	25	24	284
1902-3	132	134	20	18	304
1903-4	140	147	21	21	409

In the last year seventy-seven electricity students of the Royal College of Science are included. The Central Technical College has reached a critical point in its history. It is admitted to be the best institution of the kind in the Empire, being well equipped and staffed, the educational course is thorough and advanced, and at the end of it students may continue at research work. It gathers students who have already spent a year or more at some other technical college, and who want more intimate knowledge of their subjects. It is no longer civic, but national, even international, and with all this development there has been a gradual diminution of monetary support from the civic authorities. The proposed amalgamation is therefore opportune. Something definite is to be done, as the following paragraph from the "Times" of July 6 shows :

We understand that the Government have decided to allocate 20,000*l.* a year to the new College of Technology at South Kensington out of the Treasury subsidy for the maintenance of the Royal College of Science and the School of Mines. An intimation to this effect was made by the Chancellor of the Exchequer to Mr. Haldane at the dinner given by the Goldsmiths' Company last night in connection with the Trial of the Pyx, with permission for that right hon. gentleman to notify the fact publicly; and the news gave great satisfaction to the City magnates present. Resolutions in favour of the scheme have already been passed by the Goldsmiths' Company and the Grocers' Company, and other guilds are taking steps to place their approval of Mr. Austen Chamberlain's action on record.

## A Revocation.

It has taken the New Zealand Minister of Health a long time to realise that he was in an untenable position in the proprietary-medicine matter, but he *has* realised. A Reuter telegram from Wellington, dated June 29, states that the Government has revoked the regulations, the pressure brought to bear upon them having compelled them to give way. The proposal at first was that certain specified medicines and specialities should have the composition stated on the labels; this was then modified to requiring the formulæ to be deposited with the medical officer; then a further modification stated that formulæ should only be deposited if required. Some acceded to this. From the outset we advised total repeal of the provision, and that nobody should part with formulæ. This view has now prevailed.



### Protection and Defence.

The reports of the Proprietary Articles Trade Association and the Chemists' Defence Association for the year which is just closing are the most encouraging which have yet been issued. The progress which the P.A.T.A. has made during the year is phenomenal, in view of the strenuous opposition there was to the Association's principle, say, five years ago, not to mention the sarcastic attitude of the trade generally at its inception. Now protection—i.e., the assurance of a reasonable if not extravagant profit to wholesalers and retailers—is becoming a kind of sense to makers of proprietary articles. The best of the development is that the three parties are satisfied, and the public are not dissatisfied. The C.D.A.'s year is characterised chiefly by economical working, and we imagine the proverbial caution and thrift of the Secretary's race has played its part in reducing the adverse balance of last year from as many hundreds as it now is tens. One point ought to be emphasised. The P.A.T.A. and C.D.A. are a living proof of the saying, "United we stand, divided we fall." The one is the complement of the other, and there is advantage in their working together.

### Chemical Engineering.

Dr. J. Lewkowitsch, in the "Times" Engineering Supplement, gives a clear statement of what is meant by the term chemical engineering. A process is worked out in the laboratory by the chemist, but before it can be worked on a commercial scale the chemical engineer must devise and work out the engineering problems involved, and upon the success of his work depends entirely the success of the process. The relation between the engineer and the chemist has undergone considerable change with the advent of modern chemical industries, and whereas formerly the chemist depended on the engineer for his plant there has now been evolved a distinct class of chemical engineers, who, possessing expert knowledge of both chemistry and engineering, can advantageously modify the plant or process. Dr. Lewkowitsch handsomely compliments the work of the British chemical engineer.

### Not Good Business.

The Department of Agriculture and Technical Instruction for Ireland needs a reprimand. We have before us leaflet No. 36, issued by the Department, in which a description is given of the method of destroying charlock with sulphate of copper, and it is stated that "Copper sulphate can be obtained through any manure-merchant, and varies in price from 2s. 6d. to 3s. per stone. It should always be purchased with a guarantee of 98 per cent. purity." Perhaps the salaried official who wrote this did not pause to think that he was practically dictating to every man in Ireland the price at which he should sell copper sulphate, or that it is no part of the Board's business to instruct the public about prices. In this instance the leaflet happens to be very wide of the mark, so that a serious injury is done to all dealers in copper sulphate. The price of this chemical by the cwt. when bought from manufacturers or wholesale merchants is from 25s. to 26s. As 3s. a stone of 14 lbs. is 24s. per cwt., it is impossible for dealers in Ireland to supply it honestly at that rate. Even by the cwt., and by the lb., 5s. a stone would not seem more profit after the payment of carriage than is usually given to drapers and grocers on their commodities. The Board also sins in respect to feeding-stuffs, quoting in No. 54 leaflet 8s. 6d. per cwt. for linseed cake, which is sold in the London market by the ton at 7s. 9d. per cwt. How can the Board expect dealers to pay carriage and all incidental trading expenses and sell at 8s. 6d.? It is monstrous that a public department should so thoughtlessly mislead the public and injure honest traders.

## Westminster Wisdom.

(From our Parliamentary Representative.)

### COMPANY BILLS.

Sir John Tuke's Bills dealing with dental and medical companies were on the orders for second-reading on Wednesday and were, of course, deferred "till Wednesday next."

### BOVINE TUBERCULOSIS.

Mr. Gerald Balfour has informed Mr. Field that the Royal Commission inquiring into this subject hope to issue a further interim report towards the end of the year.

### FINES.

The question of the disposal of the fines imposed under the Sale of Food and Drugs Acts and the Weights and Measures Acts was raised by Mr. Cullinan on Monday in the form of a question to the Chief Secretary for Ireland, the hon. member suggesting that the fines imposed under the Weights and Measures Act should be treated in the same manner as those under the Sale of Food and Drugs Acts. Mr. Walter Long, however, pointed out that the fines under the former Acts are payable by statute to the Crown, while those under the latter are payable to the prosecuting local authority. The Chief Secretary was not prepared to introduce legislation to alter the application of these penalties.

### SUNDAY CLOSING OF SHOPS BILL.

By thirty-five votes against fifteen, the House of Lords, on Thursday, June 30, rejected the proposal of Lord Avebury that their Lordships should go into committee on his Sunday Closing of Shops Bill, which was consequently thrown out. Lord Lansdowne, at the very outset, intimated that the Government, while not prepared to go the length of moving the rejection of the measure, entertained serious objections to it. Lord Avebury essayed a reply to Lord Lansdowne's criticisms, in which he was supported by the Bishop of London and the Duke of Northumberland. Earl Wemyss, however, definitely moved that the Bill should be thrown out, the opponents of the Bill seeming disposed to argue that, if passed, it would operate in favour of the large to the disadvantage of the small trader. Its supporters, on the other hand, contended that the small traders are practically unanimously in its favour. Earl Spencer, the Opposition leader, confessed that further investigation had inclined his mind against the Bill. Lord Avebury pleaded with the House to allow the Bill to reach the Committee stage, when further discussion of the measure would be afforded, but on Earl Wemyss pressing his motion for rejection to a division the Bill was thrown out by a majority of twenty-one.

## The Seven Ages of Man.

(Pharmaceutically Considered).



4.

Then martial ardour seizes him awhile:  
Prates he of camps, of swords, of patriot pride,  
And dreams of days on gory battlefields.  
When, armless, legless, in a helpless plight,  
He waits for styptics, bandages, and pins.



## The United States Pharmacopœia.

### The New Edition, or Eighth Decennial Revision.

ONE of those peculiar coincidences which occur in the affairs of nations, as well as of men, brought to us on the morning of the Fourth of July a letter from Professor Joseph P. Remington, Chairman of the Committee of Revision of the Pharmacopœia of the United States of America, saying that an unbound copy of the new edition would be handed to us by the agents in London. In the course of the day it was delivered—a declaration of pharmaceutical independence in pharmacopœial affairs.

The first thing that a reviewer does when a new book is put into his hands is to turn it over, examining the binding and getting a grip of the book. This is at present denied us, but we examine the printed pages, and observe that the type is the same as in the last edition, except that the headlines are of beautifully cut and clear old English lettering, and not of the thick block kind. The size of the page is identical with the seventh edition. The contents-pages are practically identical. Then comes the "historical introduction," which is the same as before *plus* a statement respecting the seventh revision.

The next section is devoted to a report of "the proceedings of the National Convention of 1900 for revising the Pharmacopœia," which was held at Washington on May 2, 1900, Dr. Horatio C. Wood being President. There were delegates present from 127 medical and pharmaceutical bodies throughout the Union. They represented universities, colleges, State associations, societies, and the official departments connected with medicine. One of the important results of this Convention was that articles of incorporation were applied for and granted under the corporate name of "The United States Pharmacopœia Convention," it being organised for 999 years.

The Committee of Revision comprised the following:

**MEDICAL PRACTITIONERS.**—John J. Abel, M.D., N. S. Davis, jun., M.D., \* Willis G. Gregory, M.D., Walter S. Haines, M.D., H. A. Hare, M.D., \* A. B. Lyons, M.D., John Marshall, M.D., \* George F. Payne, M.D., Edward H. Squibb, M.D. (since dead), and R. W. Wilcox, M.D., with Horatio C. Ward, M.D.

**PHARMACISTS.**—Charles Caspari, jun., Ph.G., Virgil Coblenz, Ph.D., C. Lewis Diehl, Ph.M., A. R. L. Dohme, Ph.D., J. M. Good, Ph.M., C. S. N. Hallberg, Ph.G., H. Kraemer, Ph.D., E. Kremers, Ph.D., Oscar Oldberg, Ph.D., J. P. Remington, Ph.M., Charles Rice, Ph.D. (since dead), S. P. Sadtler, Ph.D., L. E. Sayre, Ph.M., W. L. Scoville, Ph.G., A. B. Stevens; and those in the medical list marked \* are also pharmacists.

Professor Remington succeeded Dr. Rice as Chairman of Committee.

#### GENERAL PRINCIPLES.

Throughout the volume it is not difficult to recognise the influence of the International Pharmacopœial Congress on Heroic Medicines, especially in bringing the strengths of certain galenic preparations common to the world into closer uniformity with European practice. Professor Remington calls our attention particularly to the fact that the strength of tincture of strophanthus has been increased from 5 per cent. to 10 per cent., that of tincture of aconite reduced from 35 per cent. to 10 per cent., and of tincture of veratrum from 40 per cent. to 10 per cent. We deal more fully later with changes in the old preparations.

#### PURITY STANDARDS

have again been thoroughly overhauled, and the following are notes from the preface:

In the present revision there has been added what has come to be known as the purity standard, or purity "rubric," which is placed in large type immediately before the description, and which defines the percentage of small quantities of permissible, innocuous impurities which do not materially affect medicinal action or interfere with pharmaceutical uses. It is believed that this plan will enable the reader to ascertain at a glance the standard which has been adopted, and which represents what the Committee believes to be obtainable, and which, on the other hand, will not prove burdensome or impossible for the manufacturer to produce without adding unnecessary and excessive cost to the consumer.

The purity standard requirements, which limit the quantity of innocuous impurities, are, unless otherwise specified, to be understood as applying to chemical substances which are free from adherent moisture, but an allowance not exceeding 3 per cent. of moisture is permitted in non-hygroscopic crystallised chemical salts. Chemical substances in the form of powder or capillary crystals, and all hygroscopic salts, are to be dispensed in a condition of sensible dryness. As long as this condition is fulfilled, the moisture present is not to be regarded as an impurity.

In the case of efflorescent salts, the purity standard must be understood as applying only to the uneffloresced crystals, and only such should be dispensed.

In some cases it will doubtless be found that the manufacturer can slightly exceed the limit of purity, and if this be the case no objection can be made, the language being usually "not less than . . . per cent. of pure salt."

The purity rubric under *Acidum Boricum* is mentioned, and we quote it and the heading:

*ACIDUM BORICUM.*

*Boric Acid.*

$H_2BO_3 = 61.54.$

It should contain not less than 99.8 per cent. of pure boric acid  $[B(OH)_3]$ .

Inasmuch as there has existed in the past on the part of the public a misconception of the purposes of a Pharmacopœia, and penalties have been imposed upon those who have sold substances bearing pharmacopœial names which were to be used in the arts, for manufacturing and other purposes, and not as medicines, it has become necessary to make the following declaration:

*The standards of purity and strength prescribed in the text of this Pharmacopœia are intended to apply to substances which are used solely for medicinal purposes and when professedly bought, sold, or dispensed as such.*

These considerations will doubtless have the attention of our own Pharmacopœia authorities, for they meet many of the demands of the retail and wholesale trade in this country.

STANDARDISATION of drugs and their preparation is more extensive and thorough than before, and we deal with it later.

DOSES are for the first time introduced—*e.g.*,

*Bismuthi subcarbonas:*

*Average dose.*—0.500 Gm.=500 milligrammes ( $7\frac{1}{2}$  grains).

A dose can, however, "never be regarded as a fixed quantity."

Synthesised products are introduced, including several which are still the subject of patents, but in no case are trade-names used.

In revising a Pharmacopœia the first consideration is probably what of the Old shall be wholly rejected. In this can we have the answer in the following

#### LIST OF ARTICLES DISMISSED FROM THE PHARMACOPŒIA.

Absinthium, acidum carbolicum crudum, alcohol deodoratum, allium, ammoniacum, ammonii nitras, antimonii oxidum, antimonii sulphidum, antimonii sulphidum purificatum, antimonium sulphuratum, argenti iodidum, arnicæ radix, asclepias, aspidosperma.

Barii dioxidum, bryonia.

Cascarilla, castanea, catechu, caulophyllum, ceratum cetacei, cetraria, charta potassii nitratis, chelidonium, chenopodium, cinchonina, cinnamomum cassia, crocus.

Decoctum cetrariæ, decoct. sarsaparillæ compositum, dulcamara.

Elixir phosphori, emplastrum ammoniaci cum hydrargyro, emp. arnicæ, emp. ferri, emp. ichthyocellæ, emp. picis burgundiæ, emp. picis cantharidatum, emp. resinæ, emulsum ammoniaci, extractum aconiti, ext. arnicæ radiceis, ext. arnicæ radiceis fluidum, ext. asclepiadis fluidum, ext. aspidospermi fluidum, ext. castanæ fluidum, ext. cinchonæ, ext. colchici radiceis fluidum, ext. conii, ext. cusco fluidum, ext. dulcamaræ fluidum, ext. gossypii radiceis fluidum, ext. iridis, ext. iridis fluidum, ext. jalapæ, ext. juglandis, ext. lobeliæ fluidum (hydro-alcoholic menstruum), ext. menispermii fluidum, ext. podophylli, ext. rumicis fluidum, ext. sanguinariæ fluidum (hydro-alcoholic menstruum), ext. scillæ fluidum (hydro-alcoholic menstruum), ext. scoparii fluidum, ext. stramonii seminis, ext. stramonii seminis fluidum, ext. uvæ ursi.

Ferri iodidum saccharatum, ferri lactas, ferri valerianas.



Glyceritum vitelli, guaiaci lignum.

Hydrargyri cyanidum, hydrargyri subsulphas flavus.

Ichthyocolloia, illicium, infusum cinchonæ, inula, iris.

Juglans.

Kamala.

Linimentum sinapis compositum, liquor ferri acetatis, liq. ferri citratis, liq. ferri nitratis, liq. sodii silicatis.

Macis, magnesiæ citras effervescentes, massa copaibæ, melissa, menispermum.

Oleatum zinci, oleum aurantii florum, ol. bergamottæ, ol. myricæ, ol. phosphoratum, ol. sesami.

Pepsinum saccharatum, phytolacæ fructus, picrotoxinum, pilulæ aloes et asafœtidæ, pil. antimonii compositæ, pil. rhei, pix burgundica, plumbi carbonas, potassa cum calce, potassa sulphurata, pulsatilla, pulvis antimonialis.

Quinidinæ sulphas, quininæ valerianas.

Rosina copaibæ, rhus toxicodendron, rosa centifolia, rubus idæus, rumex.

Sambucus, sodii carbonas, sodii carbonas exsiccatus, spiritus aurantii, spt. limonis, spt. myricæ, spt. myristicæ, spt. phosphori, stramonii semen, strontii lactas, syrupus allii, althææ, syr. hypophosphitum cum ferro, syr. rubi idæi.

Tabacum, tanacetum, tinctura arnicæ radicis, tr. bryoniæ, tr. catechu composita, tr. chirate, tr. croci, tr. cubebæ, tr. humuli, tr. matico, tr. rhei dulcis, tr. stramonii seminis, tr. sumbul, trochisci catechu, troch. cretæ, troch. ferri, troch. ipecacuanhæ, troch. menthæ piperitæ, troch. morphinæ et ipecacuanhæ, troch. zingiberis.

Unguentum plumbi carbonatis, ung. plumbi iodidi, ung. stramonii (seod).

Vinum colchici radicis, vitellus.

Zinci phosphidum.

Changes in official titles are also numerous, as well as changes in spelling. Thus it is now "acetanilide," the final *e* being added; "hydroxide" takes the place of "hydrate," "fluidextract" is one word, and not two, and "valerianate" has become "valerate." It is not possible in the time at our disposal to exhaust the alterations which have been made in the text. The changes are very numerous, and, as might have been expected in these days of unification and standardisation, they take the direction, in so far as galenicals are concerned, either of new standards where in the past no standards have existed, or of revised standards for galenicals already standardised.

#### CHANGES IN TINCTURE, ETC., STRENGTHS.

The following tinctures have been altered to 1 gram in 20 c.c.: Gambir co. and kino (both formerly 1 in 10). The following are now 1 in 10, viz.: aconite (formerly 1 in 2.85), belladonna-leaves (1 in 6.67), benzoin co. (1 in 8.33), cannabis indica (1 in 6.67), cantharides and capsicum (both formerly 1 in 20), colchicum-seed, digitalis, gelsemium, hyoscyamus, physostigma, sanguinaria, squill, stramonium (all formerly 1 in 6.67), lobelia (1 in 5), strophanthus (1 in 20), veratrum (1 in 2.5). The following, which were all formerly 1 in 10, are now 1 in 5: calumba, cardamoms, cinnamon, quassia, rhubarb, serpentary, tolu. Tincture of sweet-orange peel, formerly 1 in 5, is now 1 in 2.

Glycerin suppositories are now made half their former size, containing 3 grams in place of 6 grams.

Cubeb lozenges are to contain 0.125 gram in place of 0.25 gram oleoresin of cubeb in each.

Chrysarobin ointment is to contain about 6 per cent. in place of 5 per cent. of chrysarobin; phenol ointment about 3 per cent. in place of 5 per cent. phenol; and sulphur ointment is made half the strength—15 per cent. in place of 30 per cent.

Vinum colchici and vinum ergotæ are now made by using 1 c.c. fluid extract in 10, in place of 1 gram of drug in 6.67 c.c. Vinum album and vinum rubrum may in future contain 7 to 12 per cent. of absolute alcohol in place of 10 to 14 per cent. Alcohol itself is now to contain 92.3 per cent. of absolute alcohol, in place of 91 per cent.; diluted alcohol 41.5 per cent., in place of 41; and spiritus frumenti may have anything between 37 and 47.5 per cent., in place of 48 per cent. as formerly.

Several effervescent preparations are altered. Citrate of caffeine is now to be 4 per cent., in place of 2 per cent.; citrate of lithia 5 per cent., instead of 17 per cent.; and citrate of potash 20 per cent., instead of 48 per cent. Among other changes may be noted acid. sulph. aromat., which now contains about 20 per cent. H<sub>2</sub>SO<sub>4</sub>, instead of about 18.5 per cent.; chlorinated lime to have at least 30 per cent. of available chlorine, instead of at least 35 per cent. The anhydrous ferric chloride is reduced in liq. ferri chloridi from 37.8 per

cent. to 29 per cent., and in the tincture from 13.6 per cent. to 13.28 per cent. The quantity of iron is doubled in liquor ferri et am. acet., and in liquor ferri tersulphatis the iron salt is increased from 28.7 per cent. to 36 per cent. Oleate of mercury now contains 25 per cent. instead of 20 per cent. of yellow mercuric oxide, and syrup of iodide of iron is reduced to 5 per cent., or half its former strength. A new test has been introduced for pancreatin, of which 1 part digests at least 25 parts.

#### CRUDE-DRUG STANDARDS.

Comparatively few drugs were standardised in the seventh revision, and of these the following have been altered: For cinchona-bark the old standard was at least 2.5 per cent. of quinine, and the new is at least 4 per cent. of ether-soluble alkaloid; there is again a double standard for jalap—namely, at least 8 per cent. of alcohol-soluble resin and not more than 1.5 per cent. of ether-soluble resin, as compared with 12 per cent. and 1.2 per cent. respectively in the former edition. Powdered opium and deodorised opium must now contain from 12 to 12.5 per cent. of crystallised morphine, in place of 13 to 15 per cent.

The following drugs, for which no standard was fixed in 1890, must now contain a minimum amount of active principle. We refer later to the methods of assay.

Drug	Standard
Aconite .. ..	at least 0.5 per cent. aconitine
Belladonna-leaves ..	0.35 .. mydriatic alkaloids
Belladonna-root ..	0.5 .. "
Coca ... ..	0.5 .. ether-soluble alkaloids
Colchicum-corm ..	0.35 .. colchicine
Colchicum-seed ..	0.55 .. "
Conium ... ..	0.5 .. coniine
Guarana ... ..	3.5 .. alkaloids
Hydrastis ... ..	2.5 .. hydrastine
Hyoscyamus ... ..	0.08 .. mydriatic alkaloids
Ipecacuanha ... ..	2.0 .. alkaloids
Nux vomica ... ..	1.25 .. strychnine
Physostigma ... ..	0.15 .. ether-soluble alkaloids
Pilocarpus ... ..	0.5 .. alkaloids
Stramonium ... ..	0.35 .. mydriatic alkaloids

#### EXTRACTS, FLUID EXTRACTS, AND TINCTURES.

Of these preparations a few were standardised in the seventh revision, namely:

Extractum nucis vomicæ, formerly 15 per cent. total alkaloids, now 5 per cent. strychnine.

Extractum opii, formerly 18 per cent. morphine, now 20 per cent. morphine.

Fluidextract nucis vom., formerly 1.5 per cent. total alkaloids, now 1 gram strychnine in 100 c.c.

Tr. nuc. vom., formerly 0.3 gram total alkaloids in 100 c.c., now 0.1 gram strychnine in 100 c.c.

Tr. opii, formerly 1.3 to 1.5 gram morphine in 100 c.c., now 1.2 to 1.25 gram morphine in 100 c.c.

Tr. opii deodorat., formerly 1.3 to 1.5 gram morphine in 100 c.c., now 1.2 to 1.25 gram morphine in 100 c.c.

The following are now standardised for the first time:

Emplastrum belladonnæ, 0.38 to 0.42 per cent. mydriatic alkaloids.

Extractum belladonnæ, 1.4 per cent. mydriatic alkaloids.

Extractum colchici cormi, 1.4 per cent. colchicine.

Extractum hyoscyami, 0.3 per cent. mydriatic alkaloids.

Extractum physostigmatis, 2.0 per cent. ether-soluble alkaloids.

Extractum stramonii, 1.4 per cent. mydriatic alkaloids.

Fluidextract aconiti, 0.4 gram in 100 c.c. aconitine.

Fluidextract belladonnæ rad., 0.5 gram in 100 c.c. mydriatic alkaloids.

Fluidextract cinchonæ, 4.0 grams in 100 c.c. anhydrous ether-soluble alkaloids.

Fluidextract cocæ, 0.5 gram in 100 c.c. ether-soluble alkaloids.

Fluidextract colchici sem., 0.5 gram in 100 c.c. colchicine.

Fluidextract conii, 0.45 gram in 100 c.c. coniine.

Fluidextract guaranæ, 3.5 grams in 100 c.c. alkaloids.

Fluidextract hydrastis, 2.0 grams in 100 c.c. hydrastine.

Fluidextract hyoscyami, 0.075 gram in 100 c.c. mydriatic alkaloids.

Fluidextract ipecacuanhæ, 1.75 gram in 100 c.c. alkaloids.

Fluidextract pilocarpi, 0.4 gram in 100 c.c. alkaloids.

Fluidextract stramonii, 0.35 gram in 100 c.c. mydriatic alkaloids.

Tr. colchici, 0.05 gram in 100 c.c. colchicine.

Tr. aconiti, 0.045 gram in 100 c.c. aconitine.

Tr. belladonnæ, 0.035 gram in 100 c.c. mydriatic alkaloids.

Tr. hyoscyami, 0.007 gram in 100 c.c. mydriatic alkaloids.



Tr. hydrastis, 0.4 gram in 100 c.c. hydrastine.  
Tr. physostigma, 0.014 gram in 100 c.c. ether-soluble alkaloids.  
Tr. stramonium, 0.03 gram in 100 c.c. mydriatic alkaloids.

#### ARTICLES ADDED TO THE PHARMACOPŒIA.

The list under this heading is lengthy. We give the briefest possible abstract of each of the new monographs, using only the Latin titles:

**ACETONUM.**—Contains not less than 99 per cent. by weight of absolute acetone. S.g. 0.790 (25° C.); b.p. 56.5° C. neutral, no residue, and 20 c.c. should not discharge the colour of 0.1 c.c. decinormal permanganate in fifteen minutes.

**ACETPHENETIDINUM.**—M.p. 134°–135° C. Absence of acetanilide and parphenetidine provided for by bromine, chlorinated soda, and iodine tests.

**ACIDUM CAMPHORICUM.**—M.p. 187° C.; 10 per cent. alc. sol. [ $\alpha_D^{20}$  = +47.8°]. Absence of nitric acid ensured by ferrous sulphate test.

**ACIDUM HYDRIODICUM DILUTUM.**—Contains 10 per cent. by weight of HI. Obtained by mixing sol. of potassium iodide 135 gm. and potassium hypophosphite 10 gm. in 250 c.c. water, with sol. of tartaric acid 136.5 gm. in 400 c.c. diluted alcohol, washing precipitate with diluted alcohol to make the filtrate 1,000 gm. Among tests provided is Gutzeit's for absence of arsenic.

**ACIDUM HYPOPHOSPHOROSUM.**—A 30-per-cent. by weight solution; s.g. 1.130 at 25° C. Tests provide absence of heavy metals, barium and arsenic, and limits for phosphoric, phosphorous, sulphuric, oxalic, and tartaric acids, and potassium.

**ACIDUM TRICHLORACETICUM.**—M.p. 52° C., b.p. 195° C.

**ACONITINA.**— $C_{34}H_{47}NO_{11}$ .—White rhombic tables or prisms; m.p. (rapidly heated) 195° C., (slowly heated) 182° C. Tests include violet colouration with  $HNO_3$  and alcoholic KOH (to distinguish from pseudaconitine and atropine), and precipitate in 1–1,000 sol. with pot. permang. (to distinguish from cocaine, hydrastine, and papaverine, which are not precipitated in so dilute sol.).

**ADEPS LANE.**—M.p. 40° C.; ash 0.3 per cent. (max. and not alkaline); free from alkali and fatty acids, chlorides, and organic nitrogenous matter.

**ÆTHYLIS CARBAMATE.**—M.p. 47.5°–50° C. [This is urethane.]

**ÆTHYLIS CHLORIDUM.**—S.g. 0.918 at 8° C., b.p. 12.5°–13° C. Tests for absence of hydrochloric acid, alcohol, and sulphur compounds.

**AMMONII SALICYLAS.**—Should contain 93 per cent. of  $NH_4C_7H_5O_3$ . Limit-test for heavy metals.

**ANTIPYRINA.**—The English is given as "Antipyrine." M.p. 113° C. Absence of acetanilide ensured.

**AQUA HAMAMELIDIS.**—From a macerate of 10,000 gm. of hamamelis-bark in 20 litres of water  $\frac{8}{10}$  litres is distilled, and to this 1,500 c.c. of alcohol added. Absence of formaldehyde provided for.

**AQUE.**—The tale, paper, or hot-water processes with essential oils may be employed.

**BENZALDEHYDUM.**—Artificial or natural, containing not less than 85 per cent. of pure benzaldehyde; s.g. 1.045 at 25° C., b.p. 179°–180° C. Absence of hydrocyanic acid and chlorinated products provided for and assay-process given.

**BENZINUM PURIFICATION.**—Petroleum benzin is shaken with potassium-permanganate and sulphuric-acid solution, and after twenty-four hours with permanganate and sodium-hydroxide solution, then washed in water.

**BENZOSULPHINIDUM.**—Saccharin. M.p. 219°–220° C. Absence of inorganic impurities, carbohydroses, glucose, and benzoic and salicylic acids ensured.

**BERBERIS.**—The rhizome and roots of *Berberis Aquifolium*, Pursh., and other species of *Berberis*.

**BISMUTHI SUBGALLAS.**—Should yield between 52 and 57 per cent. of  $B_2O_3$ . Absence of free gallic acid and arsenic, and limit of nitrate, tested for.

**BISMUTHI SUBSALICYLAS.**—Should yield between 62 and 64 per cent. of  $Bi_2O_3$ . Similar tests to the subgallate.

**BROMOFORMUM.**—Consists of 99 per cent. by weight of  $CHBr_3$  and 1 per cent. of absolute alcohol. S.g. 2.808 at 25° C., b.p. 148° C. Tests show absence of free acid, bromides, brominated compounds, free bromine, and acetone.

**CATAPLASMA KAOLINI.**—Kaolin 577, boric acid 45, thymol 0.5, methyl salicylate 2, oil of peppermint 0.5, and glycerin 375. The kaolin is heated for an hour, the boric acid added, then the glycerin and other ingredients.

**CERATUM RESINÆ COMPOSITUM.**—Rosin 225, yellow wax 225, prepared suet 300, turpentine 115, and linseed oil 135.

**CHLORALFORMAMIDE.**—M.p. 114°–115° C. Absence of inorganic impurities, formic, hydrochloric and other free acids, and decomposition-products ensured.

**CINNALDEHYDUM.**—Natural or synthetic, and containing 95 per cent. pure cinnamic aldehyde. S.g. 1.047 at 25° C., b.p. 250° C. Assay-process given.

**COCAINA.**— $C_{17}H_{21}NO_4$ . M.p. 98° C., and no residue on ignition.

**CODEINÆ PHOSPHAS.**— $C_{18}H_{21}NO_3 \cdot H_3PO_4 + 2H_2O$ . Obtained from opium or by methylating morphine. Solubility 1 in 2.25 water [etc.]. Absence of morphine ensured.

**CODEINÆ SULPHAS.**— $(C_{18}H_{21}NO_3)_2 \cdot H_2SO_4 + 5H_2O$ . Solubility 1 in about 30 of water [etc.].

**COLCHICINA.**— $C_{22}H_{25}NO_6$ . M.p. 142.5° C. Solubility 1 in 22 of water.

**CRESOL** is stated to be a mixture of the three isomeric cresols obtained from coal-tar, freed from phenol, hydrocarbons, and water. Tests for solubility and limit of phenol and hydrocarbons are given.

**ELIXIR ADJUVANS** is aromatic elixir with about an eighth part of liquid extract of liquorice.

**ELIXIR FERRI, QUININÆ, ET STRYCHNINÆ PHOSPHATUM** is prepared from soluble ferric phosphate, quinine, and strychnine alkaloids, and aromatic elixir. The quinine and strychnine are converted into phosphates and mixed with a solution of ammonium acetate and aromatic elixir. The iron phosphate is separately dissolved and neutralised before being added to the alkaloidal elixir.

**EMPLASTRUM ADHESIVUM** is a mixture of rubber, petrolatum, and lead plaster, the rubber being dissolved in the petrolatum before the lead plaster is added.

**EMULSUM OLEI MORRHUÆ.**—This is a 50-per-cent. emulsion. The cod-liver oil is emulsified with about a quarter its weight of powdered acacia. The flavour is oil of wintergreen.

**EMULSUM OLEI MORRHUÆ CUM HYPOPHOSPHITIBUS.**—A similar preparation, but containing the hypophosphites of calcium, potassium, and sodium.

**EMULSUM OLEI TEREBINTHINÆ.**—Rectified oil of turpentine is emulsified with an equal quantity of powdered acacia, and flavoured with almond.

**EUGENOL** is described as an unsaturated aromatic phenol obtained from oil of cloves and other sources. The tests are physical, with the addition of the ferric-chloride test to ensure absence of phenol.

**EXTRACTUM MALTI.**—Powdered malt is macerated for six hours in the cold, then for an hour at a temperature not exceeding 55° C. The liquid is then evaporated *in vacuo* at 55° C.

**EXTRACTUM RHAMNI PURSHIANÆ.**—Cascara sagrada is percolated with weak alcohol and the percolates evaporated. The extract is then powdered and mixed with powdered liquorice-root till it weighs a quarter of the original bark taken.

**EXTRACTUM SCOPOLÆ.**—Prepared from the fluid extract. Is standardised to 2 per cent. of mydriatic alkaloids, the dilution being effected with sugar of milk.

**EXTRACTUM STRAMONII.**—From the fluid extract. To contain 1.4 per cent. of mydriatic alkaloids.

**EXTRACTUM SUMBUL.**—Prepared by evaporating the fluid extract to pilular consistence.

**FLUIDEXTRACTUM BERBERIDIS.**—Berberis is exhausted by percolation with diluted alcohol, the weaker percolates being evaporated and added to the first portions of the percolate.

**FLUIDEXTRACTUM ERYNOMI.**—Euonymus is exhausted with a mixture of alcohol (4) and water (1).

**FLUIDEXTRACTUM GRANATI.**—A mixture of glycerin and diluted alcohol is used for exhaustion.

**FLUIDEXTRACTUM LOBELIÆ.**—Lobelia is exhausted with an acetic-acid menstruum (acetic acid 1, water 3).

**FLUIDEXTRACTUM QUERCUS.**—The menstruum used is glycerin and diluted alcohol.

**FLUIDEXTRACTUM QUILLAIÆ.**—Diluted alcohol used as menstruum.

**FLUIDEXTRACTUM RHAMNI PURSHIANÆ AROMATICUM.**—A mixture of cascara sagrada, liquorice-root, and magnesia is percolated with a menstruum of glycerin, alcohol, and water, and flavoured with compound spirit of orange.

**FLUIDEXTRACTUM SANGUINARIÆ.**—An acetic-acid menstruum is used, as in the case of fluidextractum lobeliæ.

**FLUIDEXTRACTUM SCILLÆ.**—An acetic-acid menstruum is used.

**FLUIDEXTRACTUM SCOPOLÆ.**—Scopola is exhausted with alcohol (4) and water (1), and standardised to contain 0.5 w/v per cent. of mydriatic alkaloids.

**FLUIDEXTRACTUM STAPHISAGRIÆ.**—A mixture of alcohol (4) and water (1) is used for exhausting the staphisagria.

**FLUIDEXTRACTUM STRAMONII.**—Exhausted with alcohol (2) and water (1), and assayed to 0.35 w/v per cent. of mydriatic alkaloids.

**FLUIDEXTRACTUM SUMBUL.**—The sumbul is exhausted with a menstruum of alcohol (3) and water (1).

**GAMBR** is an extract from the leaves and twigs of *Ouroparia Gambir* (Hunter) Baillon (Fam. *Rubiaceæ*). Seventy per cent. must be soluble in alcohol, and the ash-yield must not be more than 5 per cent.

**GELATINUM.**—Ash-limit 2 per cent. The tests given are to establish the identity of the product.

**GELATINUM GLYCERINATUM.**—Equal parts of gelatin and glycerin. The gelatin is soaked in water, but the water is removed by evaporation during the process.

**GLANDULÆ SUPRARENALÆ SICCÆ.**—Suprarenal glands of the



sheep freed from fat, cleaned, dried, and powdered. Ash-limit 7 per cent.

**GLANDULE THYROIDEE SICCÆ.**—Ash-limit 6 per cent. Tests for the presence of iodine compounds are given.

**GLYCERITUM FERRI, QUININE, ET STRYCHNINE PHOSPHATUM.**—Soluble ferric phosphate, and quinine and strychnine converted into phosphates with phosphoric acid, are mixed with a glycerin basis.

**GUAIACOL.**—Defined as one of the constituents of beechwood-tar creosote, or product prepared synthetically from catechol or ortho-anisidin. The tests ensure absence of only hydrocarbons and creosote.

**GUAIACOLIS CARBONAS.**—Obtained by the action of carbonyl chloride upon sodium guaiacolate. Must be free from uncombined guaiacol.

**HAMAMELIDIS CORTEX.**—The bark and twigs of *Hamamelis virginiana*, Linné (Fam. *Hamamelidaceæ*). Naked-eye characters of the bark are given.

**HEXAMETHYLENAMINA.**—Described as the condensation-product obtained by the action of ammonia upon formaldehyde. Identity-tests are given.

**HOMATROPINE HYDROBROMIDUM.**—The hydrobromide of an alkaloid obtained by the condensation of tropine and mandelic acid. Besides identity-tests there are others indicating the absence of other alkaloids. The average dose is stated to be 0.0005 gram ( $\frac{1}{2}$  grain).

**HYDRASTINA.**—“An alkaloid obtained from hydrastis.” The physical properties are described and identity-tests given, also one to show the difference from hydrastinine.

**IODOLUM.**—Described as “tetraiodopyrrol, a derivative of the base pyrrol, obtained by the action of iodine upon the base in the presence of alcohol.” Besides physical properties there are tests given to limit inorganic matter, to ensure absence of hydriodic acid or soluble metallic iodides, and to limit the amount of free iodine present.

**KAOLINUM** is not to contain more than traces of iron, and when ignited at red heat should not leave less than 85 per cent. of non-volatile residue.

**LIQUOR ANTISEPTICUS.**—A weak alcoholic solution containing boric acid, benzoic acid, thymol, eucalyptol, and oils of peppermint, gaultheria, and thyme. It is filtered bright with talc.

**LIQUOR CRESOLIS COMPOSITUS.**—Cresol is emulsified with a linseed-oil soap.

**LIQUOR FORMALDEHYDI.**—An aqueous solution containing not less than 37 per cent. by weight of absolute formaldehyde. Tests are given to identify the solution, to ensure absence of fixed impurities, formic and other acids, sulphates, iron, lead, copper, and calcium. A method of assay with sodium hydroxide and hydrogen peroxide is given.

**LIQUOR SODII PHOSPHATIS COMPOSITUS.**—Sodium phosphate is rubbed in a mortar, with a small proportion of sodium nitrate and citric acid, till liquefied, and is then diluted with water and filtered. Identity-tests are given.

**MAGNESII SULPHAS EFFERVESCENS.**—Contains half its weight of magnesium sulphate. The magnesium sulphate is dried and mixed with citric acid, tartaric acid, and sodium bicarbonate. The mixed powders are then warmed to 93°–104° C., and when the mixture is sufficiently dry it is rubbed through a No. 6 tinned-iron sieve and the granules dried at a temperature not exceeding 54° C.

**MALTUM.**—Should yield not less than 70 per cent. of dry extract. The acidity of the malt, calculated as lactic acid, should not exceed 0.3 per cent.

**MANGANI HYPOPHOSPHIS.**—Should contain not less than 97 per cent. of pure manganese hypophosphite. Tests are given to ensure absence of carbonate, phosphate, and calcium, and the salt (converted into nitrate) should not respond to the modified Gutzeit's test for arsenic.

**METHYLTHIONINÆ HYDROCHLORIDUM.**—Methylene-blue obtained by the action of hydrogen sulphide upon an oxidation-product of para-amido-dimethyl-aniline. Among the tests is one to ensure absence of commercial dye and other mineral impurities. The blue should not respond to the modified Gutzeit's test.

**OLEATUM ATROPINÆ.**—Two per cent. of atropine is dissolved in oleic acid by means of a little alcohol, and then made up to weight with olive oil.

**OLEATUM COCAINÆ.**—Five per cent. of cocaine is taken, and the oleate made in a similar way to oleatum atropinæ.

**OLEATUM QUININÆ.**—Quinine (1) is dissolved in oleic acid (3). **OPIUM GRANULATUM.**—Opium dried at 85° C., and reduced to a coarse (No. 20) powder. To be assayed to yield not less than 12 or more than 12.5 per cent. of crystallised morphine.

**PARAFFINUM.**—S.g. 0.890 to 0.905 at 25° C., m.p. 51.6° to 57.2° C. A test (with fuchsin) is given to ensure absence of stearic acid.

**PELLETIERINÆ TANNAS.**—A mixture in varying proportion of the tannates of four alkaloids (punicine, iso-punicine, methyl-punicine, and pseudo-punicine) obtained from *Punica Granatum*, Linné (Fam. *Punicaceæ*). The solubility is given as 1 in 235 water, 12.6 alcohol, and 300 ether at 25° C. Identity-tests are given.

**PETROLATUM ALBUM.**—A colourless mixture of hydrocarbons obtained by purification of petroleum residues. Is required

to respond to the tests for petrolatum, including a m.p. of 45°–48° C.

**PHENOL LIQUEFACTUM.**—Contains not less than 86.4 per cent. by weight of absolute phenol.

**PILOCARPINÆ NITRAS** is added: the hydrochloride was already official, and is retained.

**PILULE LAXATIVÆ COMPOSITÆ.**—Small pills containing aloin (1.3 per cent.), strychnine (0.05 per cent.), ipecacuanha powder (0.4 per cent.), extract of belladonna-leaves (0.8 per cent.), powdered liquorice, and syrup.

**PILULE PODOPHYLLI, BELLADONNÆ, ET CAPSICI.**—Contain podophyllum resin (1.5 per cent.), extract of belladonna-leaves (0.8 per cent.), powdered capsicum (3.2 per cent.), sugar of milk, acacia, glycerin, and syrup.

**PULVIS ACETANILIDI COMPOSITUS.**—Acetanilide 7, caffeine 1, QUININÆ SALICYLAS. Physical tests and tests for identity are given. Solubility is given as 1 in 77 of water, 11 of alcohol, 110 of ether, 37 of chloroform, and 16 of glycerin at 25° C. and sodium bicarbonate 2.

**SABAL.**—The partially dried ripe fruit of *Serenoa serrulata* (Roemer and Shultes), Hooker filius (Fam. *Palmæ*). This is *saw palmetto*, much used as a diuretic in the United States.

**SAFOLUM.**—The methylene ether of allyl pyrocatechol found in oil of sassafras, camphor oil, and other volatile oils, purified. Physical characters given.

**SCOFOLA.**—The dried rhizome of *Scopolia carniolica*, Jacquin. Assayed to contain not less than 0.5 per cent. of its alkaloids.

**SCOPOLAMINÆ HYDROBROMIDUM.**—The hydrobromide of an alkaloid obtained from plants of the *Solanaceæ*; chemically identical with hyoscyne hydrobromide.

**SERUM ANTIDIPHTHERICUM.**—The standard of strength in units of antitoxic power is to be that approved by the U.S. Public Health and Marine Hospital Service.

**SODII ARSENAS EXSICCATUS.**—Should not contain less than 98 per cent. of pure anhydrous di-sodium orthoarsenate. The method of making from the crystalline salt and tests to establish identity are given. Is required to be free from arsenite and metals.

**SODII CARBONAS MONOHYDRATUS.**— $\text{Na}_2\text{CO}_3 + \text{H}_2\text{O}$ . Should not contain less than 85 per cent. of pure anhydrous sodium carbonate, corresponding to not less than 99.5 per cent. of the crystallised monohydrated salt.

**SODII CITRAS.**—To contain not less than 97 per cent. of pure sodium citrate. Besides tests for identity, there are others to ensure absence of carbonates and heavy metals.

**SODIUM PHOSPHAS EFFERVESCENS.**—Contains a fifth of its weight of exsiccated sodium phosphate. Is prepared like magnesium sulphas effervescens.

**SODII PHOSPHAS EXSICCATUS.**—To contain not less than 99 per cent. of pure anhydrous sodium phosphate.

**STRONTII SALICYLAS.**—Contains 98.5 per cent. of pure strontium salicylate. Solubility is given as 1 in 18 of water and 1 in 66 of alcohol at 25° C. Is required to be free from heavy metals, and the quantity of barium is limited.

**STROPHANTHINUM.**—A glucoside or mixture of glucosides from strophanthus. Begins to fuse at 170° C., but not completely melted till temp. 190° C. is reached.

**STRYCHNINÆ NITRAS.**—Tests of identity are given and a limit placed on the quantity of brucine.

**SULPHONETHYLMETHANUM.**—Diethylsulphonemethylethylmethane, a product of the oxidation of the mercaptol obtained by the condensation of methylethylketone with ethylmercaptan. [This is trional.] The solubility is given as 1 in 195 of water at 25° C.

**SULPHONMETHANUM.**—Diethylsulphonedimethylmethane, produced by the oxidation of the mercaptol obtained by the condensation of acetone with ethylmercaptan. [This is sulphonal.] The solubility is given as 1 in 360 of water, 47 of alcohol, 45 of ether, and 16 of chloroform at 25° C.

**SYRUPS HYPOPHOSPHITUM COMPOSITUS.**—Separate solutions are made of (1) ferric and manganese hypophosphites with sodium citrate (by heat), (2) calcium, potassium, and sodium hypophosphites in water and dilute hypophosphorous acid, and (3) quinine and strychnine in water and dilute hypophosphorous acid. The sugar is then dissolved, with agitation, in the mixed solution, strained, and made up to the prescribed measure.

**TALCUM.**—“Native hydrous magnesium silicate,” from which

**TALCUM PURIFICATUM** is prepared by removing iron with hydrochloric acid, and soluble substances by washing with water.

**THYMOLIS IODIDUM.**—Obtained by the condensation of two molecules of thymol, and the introduction of two atoms of iodine into the phenolic groups of the thymol. Contains 45 per cent. of iodine. The tests ensure absence of iodides, alkalis, and free iodine.

**TINCTURA GAMBIR COMPOSITA.**—This is intended to replace the tinctura catechu composita of the 1890 Pharmacopœia. It contains gambir (5 per cent.), Saigon cinnamon (2.5 per cent.),—both in No. 50 powder—and dilute alcohol.

**TINCTURA LIMONIS CORTICIS.**—Is a 50-per-cent. maceration of lemon-peel in alcohol.



**TINCTURA STRAMONII.**—Contains stramonium (10 per cent.) in No. 60 powder, which must contain not less than 0.35 per cent. of mydriatic alkaloids, and dilute alcohol. Made by percolation. When assayed (by process given) the tincture should contain 0.03 gm. of mydriatic alkaloids in 100 c.c.

**TROCHISCI GAMBIR.**—These lozenges are to replace the trochisci catechu of the 1890 Pharmacopœia. They contain 6 per cent. of finely-powdered Gambir. Powdered sugar is the adjuvant, with tragacanth powder and stronger orange-flower water to mass.

**UNGUENTUM ACIDI BORICI.**—Made with boric-acid powder (10 per cent.) in paraffin and white petrolatum. The melted paraffins are added while hot to the acid in a warm mortar and thoroughly mixed.

**UNGUENTUM HYDRARGYRI DILUTUM.**—Mercurial ointment mixed with half its weight of petrolatum.

**UNGUENTUM STRAMONII.**—A mixture of extract of stramonium (rubbed down smooth with dilute alcohol), hydrous wool-fat, and benzoated lard.

**UNGUENTUM ZINCI STEARATIS.**—A mixture of equal portions of zinc stearate and white petrolatum, the stearate being added to the melted paraffin.

**VANILLIN.**—Methylprotocatechuic aldehyde, occurring naturally or made artificially from several orthodihydroxybenzene derivatives. Soluble in about 100 parts of water at 25° C., in 15 parts at 80° C. Melting-point 80°-81° C. A test is given to ensure the absence of acetanilide.

**VINUM COCÆ.**—Made from fluidextract of coca (65 c.c.) in a basis of alcohol (75 c.c.), sugar (65 gm.), and red wine (to 1,000 c.c.).

**ZINCI PHENOLSULPHONATE.**—Should contain in uneffloresced crystals not less than 99.5 per cent. of pure zinc paraphenolsulphonate. Soluble in 1.7 of water or alcohol at 25° C. Loses six molecules of water of crystallisation when heated to 100° C., and the other two molecules at 125° C. The quantity of arsenic, cadmium, lead, and copper is regulated by a time-limit test. Sulphates and chlorides must not be present, and arsenic is regulated by the modified Gutzeit's test.

**ZINC STEARATE.**—May contain a small proportion of zinc palmitate. Should be neutral and free from alkalies and alkali-carths. There must not be more than traces of chlorides present.

#### ASSAY PROCESSES.

**ESSENTIAL OILS.**—In no department of chemical research has a greater advance been made during the past twelve years than in the study of the chemistry of essential oils, and, arising out of that study, their valuation upon the proportion of odorous constituents contained in them has been made possible. One of the most interesting features of the new edition is the incorporation in its monographs of definite processes for the determination of important odorous constituents, and we find the usual methods for the determination of the odorous constituents, alcohol, esters, aldehydes, etc.

As already noted, three essential oils have been omitted. The new bodies introduced bearing close relationship to volatile oils include cinnamic aldehyde, benzoic aldehyde, eugenol, safrol, and vanillin. The first-named will probably replace cassia oil in the near future; that benzoic aldehyde for many purposes must replace the volatile oils of almonds and apricot-kernels is certain; safrol, being obtainable from other sources than sassafras oil, is capable of being produced in large quantities; and as regards vanillin, there is no question that it is extensively employed in confectionery. Eugenol finds a place, as it does in the German Pharmacopœia. Its value as a medicinal agent is, of course, undoubted, but for flavouring-purposes the pure body lacks some of the more odorous, lighter constituents found in clove oil.

It is interesting to note how detailed are the U.S.P. instructions for the storage of essential oils, and how precise the conditions under which they should be dispensed. The example might be followed in a new British Pharmacopœia. What also strikes one as important is that the sources of the essential oils have been set out with greater precision, and this is especially to be commended in the case of such oils as savin oil, where differences in the material used for distillation may result in widely different essential oils. In the old edition it was described as "a volatile oil distilled from savin," now as "a volatile oil distilled from the fresh tops of savin"—thus excluding any proportion of wood, and thus defining accurately the body to be produced.

Precision also is noticeable in the monographs for anise oil and otto of rose. The observations of Mr. John C. Umney on the abnormal congealing-point of anise oil are

included, and precise instructions given for its determination—viz., the highest temperature during the crystallisation, such crystallisation being "started" when the oil has been cooled below its normal solidifying-point. In otto of rose the reverse, if one may so call it, has been adopted, and the congealing-point is taken at the point at which crystallisation first appears on passing from the liquid condition. We observe that the modifications in the "oleum" monographs, as compared with the previous Pharmacopœia, are to be the subject of a paper at the Brighton Conference, by Messrs. Umney and Bennett.

It will have been noted that the specific gravities of the new Pharmacopœia are taken at 25° C., which is probably due to the fact that for many months of the year that is a common temperature in U.S.A., and is no doubt a more convenient laboratory temperature. A very extended use is also made of the polariscope. We observe that the Pharmacopœia continues the German custom of giving the title "oleum cinnamomi" to the oil of *Cassia Cinnamomi*—that is, our oil of cassia. The principal features of the essential oils may be summarised thus:

OLEUM	IMPORTANT FEATURES.
Amygdalæ	Not less than 2 per cent. and not more than 4 per cent. of hydrocyanic acid. Not less than 85 per cent. of benzaldehyde.
Volatilis	The oil distilled from star-anise is now official—it was not in the previous Pharmacopœia.
Anisi	Now sweet-orange oil only, not bitter or sweet as formerly.
Aurantii	Required to contain 55 per cent. of cineol.
Corticis	The percentage of carvol is not stated, but the physical characters would not pass less than 50 per cent. of carvol.
Cajuputi	80 per cent. of eugenol by volume (Umney's process).
Cari	75 per cent. of cinnamic aldehyde. S.g. raised. It increases with age.
Caryophylli	50 per cent. of cineol. No species stated, but oils containing much phellandrene discounted by the usual nitrite-test.
Cinnamomi	Congeeing-point not below 5° C.
Copaibæ	S.g. raised, solubility now required one-tenth of 90-per-cent. alcohol (only).
Eucalypti	No valuation of ester included.
Foeniculi	Not less than 4 per cent. citral. Process being stated.
Juniperi	Not less than 8 per cent. ester, not less than 50 per cent. total menthol, free and as ester.
Lavandulæ	No crystallising residue on cooling, as British Pharmacopœia 1898.
florum	65 per cent. of eugenol by volume (Umney's process).
Limonis	Congeeing-point between 18° and 22° C. A saponification-value between 10 and 17 (process stated).
Menthæ Piperitæ	Not less than 5 per cent. of ester. Not less than 15 per cent. of total borneol.
Myristicæ	Distilled from fresh tops only. Rotation between +40° and +60°.
Pimentæ	Limits of s.g. narrowed to 1.065 from 1.075 at 25° C.
Rosæ	Not less than 92 per cent. allyl isothiocyanate.
Rosmarini	20 per cent. of phenols (Umney's assay-process).
Sabinæ	
Sassafras	
Sinapis Volatile	
Thymi	

The most interesting features of the above table showing the valuations of chemical constituents are the omission to assay lavender oil by ester percentage, the ester requirement of peppermint oil—viz., not less than 8 per cent. (which may shut out some rectified American peppermint oils, especially in wet seasons, but will be useful in precluding admixtures with Japanese oil)—and low percentage of citral in lemon oil, which, however, is one quite in accord with the observations of the big makers of terpeneless lemon oils. One feature to which we have not referred is the pointed reference to sophistications, one being to the sophistication of sandalwood oil with chloroform, which is unknown in British pharmacy.

The monographs for the fixed oils are also a decided advance on those of any other Pharmacopœia. They include saponification-values and [or] the iodine-absorption figures for such oils as almond, castor, cod-liver, and olive.

**ALKALOIDAL PROCESSES.**—As already stated, a consider-



ably increased number of drugs are standardised in the new edition. At present we can only deal with these so far as to satisfy curiosity, and this we do as briefly as possible. For brevity's sake in the notes alcohol is A., water W., Ammonia-water Am, ether E., chloroform C., and acids and alkalis are indicated by their formulæ. The figures for solvents represent c.c.

**ACONITE.**—The drug percolated with A7 and W3 evaporated to dryness, treated with W+H<sub>2</sub>SO<sub>4</sub>, filtered, and alkaloid washed out with E25Am2 and E15, 10 and 10. Washings evaporated, dissolved in 3 c.c. N/10 H<sub>2</sub>SO<sub>4</sub> and titrated with hematoxylin as indicator.

**BELLADONNA LEAVES AND ROOT.**—The drug is moistened in Cl, E4, and Am+W added and percolated into separator containing H<sub>2</sub>SO<sub>4</sub>+W, percolation being continued with CE mixture. The acid liquid is drawn off, separated, and reserved. The CE percolate again agitated with H<sub>2</sub>SO<sub>4</sub>+W. Acid solutions made alkaline with Am and extracted with C 15, 15, and 5. C washings evaporated, dissolved in E, again evaporated and residue supersaturated with H<sub>2</sub>SO<sub>4</sub> and titrated.

**CINCHONA** is shaken with E, C, and Am, two-thirds of the liquor being drawn off, excess of H<sub>2</sub>SO<sub>4</sub> added, shaken, drawn off, and washing with acid repeated twice. The washing is divided into two, one being used for anhydrous cinchona alkaloids, and the other for ether-soluble alkaloids.

**COCA.**—The drug percolated with Cl, E4, and Am, percolate shaken with H<sub>2</sub>SO<sub>4</sub>+W three times. Acid liquids made alkaline with Am and extracted with E three times. Evaporated, supersaturated with N/10 H<sub>2</sub>SO<sub>4</sub> and titrated.

**COLCHICUM-CORN.**—Drug shaken with E77, C25, A8, Am3, filtered, and evaporated to dryness. Residue dissolved in E+W, filtered, shaken with W and W sol. with C twice. C evaporated, dissolved in A, evaporated and dissolved in E+W. E evaporated, C added, shaken out, evaporated, re-dissolved in A, evaporated, and weighed.

**COLCHICUM-SEED.**—The process is similar but shorter than the last.

**CONIUM** is shaken with mixture of E98, A8, and Am3, a portion of the clear liquor acidified with H<sub>2</sub>SO<sub>4</sub>, and the E evaporated; A added and AmSO<sub>4</sub> allowed to separate. Liquid then filtered and almost neutralised with Na<sub>2</sub>CO<sub>3</sub>. Concentrated and fat removed with E, made alkaline with Na<sub>2</sub>CO<sub>3</sub>, and washed with E15, 15, and 10. E separated and HCl in excess added, evaporated, washed with A, and weighed.

**GUARANA** is shaken with C+Am, and a portion filtered and evaporated. Residue dissolved in H<sub>2</sub>SO<sub>4</sub>+W, filtered, and C+Am, then C twice, drawn off, evaporated, and weighed.

**HYDRASTIS** is shaken with E+Am+W. Two-thirds separated and shaken with normal H<sub>2</sub>SO<sub>4</sub>+W twice and W. Acid solutions made alkaline with Am and shaken with E thrice, E evaporated, and weighed.

**HYOSCYAMUS** is assayed in the same manner as belladonna-leaves with adjustment in the C+E.

**IRECAC** (so named and Rio and "Carthagenia" recognised). The drug (15 gm.) is shaken with E115 and C35, then Am3 and W10 added. Shaken, 100 c.c. drawn off and shaken with normal H<sub>2</sub>SO<sub>4</sub>. 10+W10. Repeat with H<sub>2</sub>SO<sub>4</sub>. 3+W5, and then with W10. To acid solutions excess of Am added +E25, then E20 and 10. Evaporated, residue dissolved in 12 c.c. N/10 H<sub>2</sub>SO<sub>4</sub>, and titrated.

**JALAP** is percolated with E, evaporated, and weighed. Percolation continued with A, and 20 c.c. of this percolate shaken with 20 c.c. each C and W. C evaporated and weighed gives ether-insoluble resin.

**NUX VOMICA** (20 gm.) is shaken with 200 of E 137½, C 44, A 15½ and Am 5, and macerated twelve hours; to 100 drawn off 15 normal H<sub>2</sub>SO<sub>4</sub> added, and repeated with 5 and 3 or more. Acid liquids mixed with 25 C and excess of Am, and C drawn off. Separator-contents washed with C 15 and 15. C evaporated and residue dissolved in H<sub>2</sub>SO<sub>4</sub>+W and warmed, HNO<sub>3</sub>+W added when cold; after ten minutes mixture is added to excess of NaOH, and extracted with C 20, 10, and 5. Evaporated, residue dissolved in 6 c.c. N/10 H<sub>2</sub>SO<sub>4</sub> and titrated (iodeosin as indicator).

**OPIMUM** (10 gm.) is shaken with W 100 c.c. for three hours, filtered, the filter being washed with W until 150 c.c. got. The washing process repeated (fifteen minutes only) to get 150 c.c. more, and again to get 20 c.c. Filtrates evaporated to 14 gm., which with 6 c.c. of W washings shaken with A 10 gm., E 25 c.c., and Am 3.5 c.c. After six hours the mixture transferred to two 7 c.m. filters, all the crystals being collected thereon, washed with E and morphinated A. Dried and weighed. Crystals now treated with lime-water, filtered, and the flask and filter washed with lime-water. The filter is dried and weighed, the residue being the impurity in the morphine.

**PHYSOSTIGMA.**—The seed is shaken with E+NaHCO<sub>3</sub>+W, and half of E solution drawn off and extracted with H<sub>2</sub>SO<sub>4</sub>+W (three washings). The acid washings are shaken

with E supersaturated with NaHCO<sub>3</sub>, and shaking repeated with E20 and 15. E solutions evaporated, residue dissolved in N/10 H<sub>2</sub>SO<sub>4</sub> and titrated (indicator iodeosin).

**PILOCARPUS** (*P. Jaborandi* or *P. microphyllus*).—10 gm. moistened with 2 c.c. Am and 3 c.c. of C and percolated with C+Am. Percolate extracted with H<sub>2</sub>SO<sub>4</sub>+W, and acid solution with Am+C, C evaporated and residue treated with H<sub>2</sub>SO<sub>4</sub>+W and titrated.

**SCOPOLA** and **STRAMONIUM** are to be assayed like belladonna-leaves.

The test-solution portion of the Pharmacopœia has also been thoroughly revised.

## Legal Reports.

### Sale of Food and Drugs Acts.

#### GLYCERIN.

At the Bradford Police Court on Tuesday, July 4, before the Stipendiary Magistrate (Mr. Skidmore), Jas. W. Savage and George S. Savage, chemists, trading as Savage & Co., 15 Little Horton Lane, Bradford, were charged with selling glycerin contaminated with arsenic. For the Corporation Mr. W. G. Purnell appeared, the defendants were represented by Mr. W. A. Foster (Messrs. Gaunt, Hines & Bottomley); the alleged warrantors, Messrs. Evans Sons Lescher & Webb, Ltd., of Liverpool, were represented by Mr. Greer, and Mr. H. Thornton Pullan held a watching brief for Messrs. Goodall, Backhouse & Co., of Leeds, whose sales of glycerin to the defendants were also referred to.

Mr. Purnell stated that the purchase was made on May 23, and Mr. F. W. Richardson, the city analyst, reported that it contained 0.0011 part of arsenic, equivalent to 1½ grain of arsenic in the pound, whereas the British Pharmacopœia does not allow for any arsenic in glycerin. He had received from the defendants a copy of a warranty. A warranty in itself would obviously be a good defence if it was true, but from information which he had received that morning he must ask for proof of the warranty and for proof that the article sold was in the same condition as that in which it had been sold to Messrs. Savage by the persons supplying them. He was bound to ask for this proof because it now appeared that two firms were concerned in the matter.

Mr. Greer, on behalf of Messrs. Evans Sons Lescher & Webb, whose warranty had been produced to the Corporation, said that he was in a position to prove by a number of witnesses that this stuff which contained arsenic could not possibly have come from them.

Mr. Foster said the facts of the sale were admitted, but the defendants had purchased glycerin from two firms, and, unfortunately, the defendants had taken it for granted that the glycerin sold in this case had been bought from Messrs. Evans, and had given the proper notice in respect of the warranty given by that firm, but had failed to give notice to the other warrantors within the necessary time. Notice had been given to the other firm within the last few days and he noticed that the firm was represented in Court, and if the parties would agree to waive objection and stand upon the merits of the case his clients would be very glad. Messrs. Savage had only purchased glycerin from two firms, and the glycerin in question had come from one of the two, and they had warranties from both, but it was impossible for them to prove from which of the two firms the glycerin was obtained. They could prove that the glycerin must have come from one or the other, and they did not admit that it did not come from Messrs. Evans.

Mr. G. H. Brayshaw, inspector, proved a purchase on May 23, and produced the city analyst's certificate.

Dr. Arnold Evans, medical officer of health, was to give evidence about the effects of such glycerin, but the Magistrate said that issue was not raised. Mr. Foster, however, said the proportion of arsenic was infinitesimal, which Dr. Evans denied and mentioned that the Arsenic Commission had recommended local authorities to take proceedings if the amount of arsenic exceeded 1½ grain per lb. He held the view that when people went into a shop and asked for glycerin they did not want a mixture of glycerin and arsenic.

Mr. Greer said his clients agreed at once that what people



were entitled to get is glycerin according to the British Pharmacopœia.

Mr. Foster suggested that an adjournment should be granted in order that the defendants might have the opportunity to give the requisite notice to Messrs. Goodall, Backhouse & Co., but Mr. Purnell would not give way.

Mr. Greer said that one of the defendants, after receiving the assurance of Messrs. Evans Sons Lescher & Webb, wrote to them: "I think, under the circumstances, we can support you next Tuesday in agreeing with you that it was not your glycerin." His clients would welcome a full inquiry because they had the most convincing evidence, right from the original manufacturer to the very drum from which Messrs. Savage had been supplied by them, that there was no arsenic in the glycerin, and he understood also that Messrs. Savage had had some of Evans's glycerin analysed by Mr. Richardson, and that it was after receiving the result of this analysis that the defendants wrote to his clients the letter to which he had referred.

Mr. Purnell said that his friend Mr. Pullan, who, as he only held a watching brief, was not permitted to address the Court, assured him that Messrs. Goodall, Backhouse & Co. were prepared to stand by their guarantee if need be.

The Stipendiary Magistrate said there was a complete absence of proof that the glycerin was either Evans's or Goodall's.

Mr. H. T. Pullan, obtaining permission to address the Court, said that he considered it grossly unfair on the part of the defendants to introduce the name of Messrs. Goodall, Backhouse & Co. at all, and that that firm stood in the same position as Messrs. Evans did in denying that the glycerin in question was part of that supplied by them, and in asserting that they absolutely guaranteed the purity of their glycerin.

The defendants were fined 1*l.*, and 1*l.* 8*s.* costs, with the alternative of ten days' imprisonment.

Taylor's Drug Co., of Burley, Leeds, were also summoned to answer a charge of selling adulterated glycerin, but in this case Mr. Purnell announced that he had agreed with the defendants' solicitors for an adjournment until July 12.

#### MILK OF SULPHUR.

At Malmesbury Petty Sessions on July 4, George Platt, grocer, Great Sherston, was summoned by Mr. Sam Smith, inspector under the Food and Drugs Acts, for selling to him on May 4, 4 oz. of milk of sulphur which contained  $\frac{1}{4}$  grain of arsenic per oz. Mr. H. Bevir appeared for the prosecution, and Mr. Kirby (Neve, Beck & Kirby, London) for the defence. Defendant pleaded not guilty. Mr. Bevir, in opening the case, referred to the harm the arsenic might do. Mr. Smith proved the purchase and sending a portion to Dr. Bernard Dyer, the county analyst, and he put in his certificate. Witness stated that he himself was a chemist and druggist [Minor Exam., 1881] and had known people take this substance much in excess of the B.P. dose, a teaspoonful often being given to children. In cross-examination witness stated that other purchases of sweet spirit of nitre and camphorated oil from the defendant were genuine. This was the first case he had had of the kind, and he believed the only one in the country.

Dr. Bernard Dyer proved receiving the sample, and analysing it found it to be in accordance with his certificate. He had weighed a heaped teaspoonful and found it to be approximately  $\frac{1}{4}$  oz., and in that quantity there would be about  $\frac{1}{30}$  grain of arsenic. Cross-examined, the witness added that the percentage would be about 0.03 and explained that no doubt the arsenic had been introduced by the hydrochloric acid used in the process of manufacture. In answer to the Bench he said the arsenical acid would probably not be used for cheapness as the non-arsenical acid is made on a large scale and is cheap.

Mr. Kirby, for the defence, said defendant bought 2 lb. of this in November last for 6*d.* per lb. from a good house, who stated that all their preparations were made according to the B.P., and he relied on them sending him a pure article. The wholesale people bought it from a firm near Birmingham and had it guaranteed to them. So far as could be gathered the arsenic got in through impure hydrochloric acid. There was a remarkable thing with regard to this, that a portion of the bulk out of which the inspector was served had been tested by an eminent analyst, who could only find  $\frac{1}{100}$  grain per oz.; the portion left by the inspector was also tested,

and the result, it was only fair to say, entirely confirmed Dr. Dyer's analysis. It was a thing no one seemed able to explain.

Mr. Platt having given evidence, the Bench fined him 1*s.*, and 10*s.* costs.

### County Court Cases.

#### A REHEARING.

At Paignton on July 1, a special County Court was held by Judge Lush Wilson, K.C., for the purpose of rehearing the interpleader action in which Miss Edith Bloomer was the claimant, Mr. Alfred Higgs, journalist, the execution-creditor, and Mr. J. J. Thomas, chemist, who owes Mr. Higgs 24*l.* on an advertising account, the defendant (see *C. & D.*, June 24, page 971). The Judge explained that soon after giving his decision he had a little misgiving on the point of law and looked up another case bearing thereon and a report of the Lord Chancellor's judgment. An application for a new trial was not necessary, and as the decision had not been recorded he had the right at any time before this was done to alter it. Counsel on both sides contended that his Honour had no power to alter his decision, once given, but his Honour disagreed. Evidence was then given at length by Miss Bloomer. His Honour said that he was bound to hold that the document in question was a bill of sale requiring registration, and therefore there must be judgment for the execution-creditor.

#### THE DEFENDANT'S INSTRUCTIONS.

At Monmouth County Court last week, the reading of a solicitor's letter in the case of T. Newcomen, chemical-manufacturer, Lydbrook v. Frank Johnson, chemical-manufacturer, Stratford, caused his Honour Judge Owen to make some comments. The letter, which was sent to the Registrar, stated that the defendant had both a legal and equitable defence to the claim, and that being so "we have advised him to pay the full amount of the debts and costs into court, and to ask the Court that the case shall be adjourned for a month or six weeks." In a postscript it was stated that defendant would be prepared to pay any further costs, but "under no circumstances must judgment be entered against him." The Judge refused to adjourn the case, and formal proof of the debt, which was a balance of an order for acetate of lime, being given by Mr. Newcomen, his Honour gave judgment for 53*l.* 6*s.* 3*d.*, with costs.

## Gazette.

### Partnerships Dissolved.

- Charles, H. E. A., and Martin, G.,** Brighton, veterinary surgeons and shoeing smiths.  
**Coleman, H. A., and Doran, S. S.,** Manchester, dental surgeons.  
**Craig, J. F., and Kennedy, J. B. M.,** Birmingham, surgeons, etc.  
**Crawley, J. B., and Tyne, W.,** under the style of Crawley & Co., mineral water manufacturers, Bournemouth.  
**Davis, G. E., and Davis, A. R.,** under the style of Davis Bros., Strand, London, W.C., and Manchester, analytical and consulting chemists.  
**Dickinson, W. G., and Larbalestier, W. R.,** Elm Bank, West Hill, Wandsworth, S.W., general medical practitioners.  
**Gwynne, C. N., and Murray, C. G.,** Sheffield, physicians, etc.  
**Robertson, J. S., and Cressy, C. J.,** Adderbury, Oxon., general medical practitioners.  
**Rose, H., and Stewart-Smith, M. W.,** Aylesbury, Bucks, physicians and surgeons.  
**Stack, E. C., and Burgess, P. C.,** Burton-on-Trent, physicians, etc.  
**Taylor, H. W., and Taylor, P. F.,** under the style of H. Taylor & Sons, New Wharf Road, King's Cross, London, N., medical, photographic, and decorated glass manufacturers.

### The Bankruptcy Acts, 1883 and 1890.

#### ADJUDICATIONS.

- Kirkup, George John,** Newcastle-on-Tyne, chemist.  
**Wheeler, Richard John,** Mile End Road, London, E., medical practitioner.

#### ORDER MADE ON APPLICATION FOR DISCHARGE.

- Hill, Herbert Frederick,** Margate, Kent, and Piccadilly, London, W., dental surgeon—discharged conditionally.



## Bankruptcy.

**Re JOHN MELBOURNE REES**, 8 High Street, Redhill, Surrey, late Southgate Street, Bath, 6 The Street, Radstock, Somerset, and 76 Norfolk Avenue, Southend, Essex, Chemist and Druggist.—Debtor attended on June 28, at the Croydon Bankruptcy Court, before Mr. Registrar Fox, for public examination upon accounts filed showing unsecured liabilities 2,254*l.* 13*s.*, and assets estimated to produce 946*l.* 13*s.* 4*d.* He was brought up in the custody of two warders from Brixton Prison, having been committed on the Registrar's warrant because he had not supplied the information required by the Official Receiver and the trustee, and had openly suggested that he intended to leave the country. The Registrar said he was, on the information brought before him, compelled to issue the warrant, but if the debtor would now give the particulars required in the course of his examination, and his undertaking that he would remain in the country until his affairs had been properly investigated, he would at the close of the proceedings order his release from custody. In reply to the Official Receiver, debtor said he was a chemist and druggist, and he had been in the habit of taking shops, working up the business, and then selling them. He commenced business at High Street, Grays, in 1901. He had no capital of his own then, but he borrowed a sum of 250*l.* He had previously been a chemist's assistant and manager. He borrowed the 250*l.* from his father-in-law, and this had not been repaid directly, but he had lent his brother-in-law a sum equal to that which he had borrowed, and that was treated by his father-in-law as equivalent to repayment. He sold the business at Grays in 1903 for about 1,300*l.*, of which he received 750*l.* in cash and the balance in bills. The bills were discounted with various persons and banks. He did not use any of the bills for the purchase of a house at Westcliff, but he did buy a house there for 750*l.* The business at Grays was a profitable one, and he had no reason for selling it except that his idea was to take premises, and, having worked up a business, to sell it at a profit. His next business was at Southend. He took that in September 1902, and, having kept it for one or two years, he sold it for 1,035*l.* It was a new business, which he had worked up. He still had an interest in that business in the event of the profits exceeding a certain sum, but he had given a charge upon this. In July 1904 he had a business at Bath. He was there about six months, taking it in July 1904, and spending 1,500*l.* on it. He sold that business on terms which are rather complicated, and upon certain representations as to the amount of the takings. These representations were not justified, and the purchase was never completed. In the meantime debtor had used about 400*l.* of the money that had been paid by the purchasers. He (the debtor) then sold the business for what he could get, as he had to pay the previous purchaser the money he had received. He sold the business a second time for 600*l.*, which was considerably less than the price agreed upon for the first sale. He then went to Radstock, in Somerset, and opened business there. That was a profitable business. He never went into his affairs or prepared any statement showing what his financial position actually was. He sold the Radstock business for 260*l.*, about what it cost. The Redhill business was opened in February 1905. In further examination the debtor admitted that in October 1904 he was being sued, but that was in respect of a claim he disputed. He went to moneylenders because he had to raise the money to open the Radstock business, but he only paid 20 per cent. interest for what he borrowed. The only capital he had at the opening of the Redhill business was represented by bills, which were lodged as security with creditors, and the interest which he retained in the Bath business, which was also charged. The Redhill business cost him 1,000*l.* in addition to the stock he brought from Bath. Examined as to his banking accounts, the debtor admitted that he had no less than nine different accounts, three of which were at Bath, and, pressed for an explanation as to the necessity of this, the debtor said he opened an account and considered it closed when he paid no more in. As regards the house at Westcliff-on-Sea, he sold that in 1905 at a loss. He attributed his insolvency to having insufficient capital for the business he was carrying on and to illness during the time that he was at Bath. He admitted having lived beyond his income, and he had made losses on bill transactions. During the twelve months preceding the Receiving Order, though he had only made a net profit of 102*l.*, he had drawn for household and personal expenses 309*l.* He first became aware of his insolvency in April, when he called his creditors together, but even up to that time he had not been pressed by his creditors, or at all events until three or four weeks before that time. The furniture was claimed by his wife, on the ground that she had purchased it with money provided by her father. Debtor was then examined by Mr. Tindall Davies on behalf of the trustee. Having agreed to attend the Court for further examination on August 16, the Registrar signed an order for his release, and the examination was adjourned.

## New Companies & Company News.

**A. BOAKE, ROBERTS & CO. (CONTINENTAL), LTD.**—Registered June 16. Capital 20,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with A. Boake, Roberts & Co., Ltd., for the acquisition of the goodwill and assets of its branch businesses at Brussels and Lille, and to carry on the business of chemical manufacturers, chemists, distillers, drysalts, etc. No initial public issue. The first directors (to number not less than three nor more than seven) are: A. Boake, E. G. A. Roberts, E. J. Boake, and F. M. Roberts. Qualification, 50*l.* Remuneration as fixed by the company. Registered office, 100 Carpenters' Road, Stratford, Essex.

**W. MONTGOMERY & CO., LTD.**—Capital 95,000*l.*, in 1*l.* shares (50,000 preference). Objects: To adopt an agreement between Mrs. G. M. A. Montgomery, J. Montgomery, A. Montgomery, H. Montgomery, D. White, and this company, and to carry on the business of importers and manufacturers of and dealers in nitrate of soda, nitrates, iodine and other products of nitrate beds, nitrate of potash, saltpetre, muriate of potash, sulphate of potash, sulphate of ammonia, sulphuric acid, nitric acid, and all other chemical products, Peruvian and fish guano, and artificial manures, etc. No initial public issue. Mrs. Montgomery is permanent governing director, subject to holding 20,000 ordinary shares, with 100*l.* per annum as remuneration. Qualification of directors, other than governing directors or their nominees, 2,000*l.* ordinary shares. Registered office, 62-3 Mark Lane, E.C.

**ACME STOPPER AND BOX CO., LTD.**—Capital 20,000*l.*, in 1*l.* shares. Objects: To acquire as from January 1, 1905, the business carried on at Ashford Street, Birmingham, as the "Acme Stopper and Decorative Box Co.," to adopt an agreement with F. J. Gibbs, R. H. Griffiths, and H. A. Griffiths, and to carry on the business of manufacturers of and dealers in all kinds of stoppers, caps, capsules, rims, fittings and materials, bottles, jars, pots, cans, canisters, and metal or other boxes and vessels, dealers in metal collapsible and other boxes and tubes, etc. No initial public issue. The first directors are F. J. Gibbs (chairman), R. H. Griffiths, and H. A. Griffiths. Qualification, 1,000*l.* Remuneration of R. H. Griffiths and H. A. Griffiths as managing directors, 300*l.* each per annum. Remuneration of F. J. Gibbs as chairman, 100*l.* per annum. Registered office, Ashford Street Works, Birmingham.

**WILLIAM TOOGOOD, LTD.**—Capital 30,000*l.*, in 1*l.* shares (15,000 preference). Objects: To acquire the business carried on at 25, 25, 27, and 35 Heddon Street, W., as "William Toogood," and to carry on the business of manufacturers of and dealers in druggists' and perfumers' sundries, glass bottles, glassware, earthenware, china, chemical apparatus, india-rubber, leather and fancy goods, proprietary articles, photographic apparatus and materials, etc. The first subscribers are: T. Toogood, 16 Alwyne Mansions, Willesden, merchant; W. L. Toogood, 17 Revas Road, Balham, S.W., manager; E. J. Toogood, 8 Wildeman Road, Wimbledon, traveller; F. W. Farrow, 188 Minard Road, Calford, cashier; E. V. F. de Putron, 10 Beauchamp Road, S.W., traveller; G. Culling, 11 Kingslake Road, Egremont, Cheshire, traveller; and F. B. Smart, 22 Queen Street, E.C., C.A. No initial public issue. The first directors are T. Toogood, W. L. Toogood, and E. J. Toogood. Remuneration, 250*l.* each per annum (chairman 50*l.* extra).

**APOLLINARIS & JOHANNIS, LTD.**—The directors have resolved to recommend a final dividend of 5 per cent. on the ordinary shares, making 5 per cent. per annum for the year ending March 31 last. They further recommend placing 20,000*l.* to the reserve, as last year, leaving 15,327*l.* 16*s.* 7*d.* to be carried forward, as compared with 11,381*l.* 1*s.* 11*d.* carried forward last year. The transfer books will be closed from July 4 to 13, both days inclusive, for the preparation of the dividend warrants.

**PHILLIPS & CO., LTD.** (Bombay and Poona).—The following facts from the directors' report are additional to those given last week. The report refers to the year's trading up to February 28, and covers the twentieth year. The profit and loss account shows "gross profits" of the Bombay branch Rs. 68,629.15.5. and of Poona Rs. 43,240.12.2, together Rs. 111,870.11.7, with Rs. 927.12.11 from other sources. The working expenses of both branches, including directors' and auditors' fees, amounted to Rs. 61,849.2.0. The net profit was Rs. 50,949.6.6. The directors report that the loan on buildings has been reduced by Rs. 15,000 during the year, and they recommend that, in addition to paying 8½ per cent. on the shares (against 7½ per cent. last year), and allowing for doubtful debts, Rs. 58,419.7.11 should be carried forward (Rs. 25,853.5.0 last year). The directors regret that Mr. B. Phillips was compelled, on account of ill-health, to resign his position as general manager in November last. They have, however, appointed Mr. T. J. Edmonds, the former manager of the Poona branch, as general manager of the company.







## Trade Report.

**NOTICE TO BUYERS.**—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., July 6.

**A** RATHER better business tone has prevailed in drugs and chemicals this week, although the markets are far from active. Fluctuations are a trifle more important than usual; they include a sharp advance in citric acid, owing to the rise in raw materials. English make is practically off the market for the moment. Pyrogallie acid is also dearer by 8d. per lb.; gallie and tannic acids are very firm, owing to the dearness of galls and spirit. Morphine salts have advanced 3d. and codeine and salts 6d. per oz. Tartar emetic is also dearer. The activity in menthol has subsided, but prices have not materially altered. Soudan gum arabic is firmer. Quinine is lifeless. The table given below gives the principal alterations of the week, including those recorded at the drug-auctions:

Higher	Firmer	Easier	Lower
Acid, citric	Aloes, Cape	Ammonia	Dragon's
Acid, pyrogallie	Benzols	sulphate	blood
Aloes, Curaçao	Cardamom	Benzoin	Jalap
Codeine and	seed	(Sumatra)	Turpentine
salts	Coca-leaves	Cardamoms	
Morphine salts	(Ceylon)	Pimento	
Oil, lemon	Gum arabic	Soda, nitrate	
Shellac (A. C.	Myrrh	Wax, bees'	
Garnet)	Rose-petals	(Jam.)	
Tartar emetic			

### Cablegrams.

**HAMBURG, July 6** :—Cumin-seed is firm. Menthol, lycopodium, and Japanese wax are quiet.

**SMYRNA** :—The sales of opium for the week ending Wednesday amount to 60 cases, on account of U.S.A., English buyers, and speculators, at from 8s. 3d. to 8s. 9d. per lb. Market closes firm.

**NEW YORK, July 6** :—Market quiet. Opium is firm at \$3 per lb. for druggists', in case lots. Jalap is strong at 9c. per lb., and senega is dull of sale at 62c. per lb. Rio ipecac. is firm at \$1.35 per lb., and menthol is slow of sale at \$1.85 per lb. Peppermint oil is dull of sale at \$2.70 per lb. for tins, and cascara sagrada closes strong at 6½c. per lb.

### The Bulgarian Rose-crop.

Our correspondent in Bulgaria, under date of June 30, writes as follows: The rose harvest throughout the whole district is ended. Only in half a dozen villages situated high in the mountains the distillation may drag three or four days longer. On account of the late spring the rose harvest this year was about ten days later than usual, but, in spite of its backwardness, it again lasted nearly four weeks, or a week longer than usual. This was due to the unusually cool and favourable weather which prevailed not only during the budding season, but also during the harvest. Beginning with May 13 down to June 24, it has rained almost every day, with the exception only of four days, and during this entire period of nearly seven weeks the atmosphere has been ideally cool, with continual fresh breezes, and not one single southern wind. Thanks to this exceptionally favourable weather the present rose crop, instead of turning out a famine crop, as at first supposed, proved one of the finest. As yet it is too early to estimate exactly the total yield; it exceeds, however, all previous expectations, and will in no case fall under 120,000 oz. This will be about 8 per cent. less than last year's. This figure does not include an ounce of the old otto left unsold from last year, nor an ounce of the various adulterants

imported for purposes of making various commercial grades of otto. In spite of all prohibitive Government measures against the importation of essential oils used as adulterants, it is a common belief among a certain class of dealers, jobbers, and growers, that consumers abroad prefer the adulterated stuff to the pure, and consequently these adulterants are extensively smuggled into the country and used to make several grades of otto to suit all tastes. The price of the new otto will hardly be fixed before the middle of July. At least two weeks' time must be allowed for the verification of this year's yield. As usual, the new prices will be settled on the basis of the actual cost of the otto, which this year is a little higher on account of the expensive fuel. The rose flowers also were a trifle dearer. Still, on account of the abundant yield, and, above all, on account of the large stock of old otto and of cheap grades, only the pure lots of this year's crop are likely to realise higher prices. Whatever this rise in the price may be, it is not expected to be over 10 per cent. It will depend chiefly on the demand from abroad.

**ACID, BENZOIC**, from the gum is quoted at from 2s. 8d. to 2s. 11d. per lb. net, and ex toluol at from 1s. 8d. to 1s. 10d. per lb., according to quantity.

**ACID, CITRIC**.—The English makers have advanced the price of English to 1s. 4d. per lb.—a rise of 2d. They are said to have sold up to 1s. 3d., and on Wednesday refused to go on at this figure. Foreign can be had at from 1s. 2½d. to 1s. 2½d. Concentrated lemon-juice has advanced to 20l. 12s. 6d. per pipe.

**ACID, PYROGALLIC**.—The makers announce an advance of 8d. per lb. Schering's make is now quoted at from 11s. 4d. to 11s. 8d. per lb., the lower price being for 500-oz. lots; for six and twelve months' contracts proportionately lower prices are quoted.

**ACID, TANNIC**, is rather firmer, one maker having advanced his price to 2s. per lb. for B.P. 1898 quality in ½-cwt. lots. Gallic is very firm at from 1s. 8½d. to 1s. 9d. per lb., according to quantity.

**BELLADONNA-ROOT**.—Root of good alkaloidal content continues scarce, at from 38s. to 42s. per cwt., c.i.f.

**CINCHONA**.—The auction to be held at Amsterdam on July 13 will consist of 11,200 bales and 309 cases, weighing 1,067,906 kilos., of Java bark and containing 53,444 kilos. of quinine sulphate. The average percentage of quinine in the manufacturing-bark is 5.34 per cent., against 5.29 per cent. for the June auction, and an average of 5.27 per cent. for the ten auctions held in Amsterdam last year. The exports of bark from Java during June were as follows:

	Amst. lbs.		Amst. lbs.
1905 ...	1,251,000	1898 ...	1,033,000
1904 ...	1,114,000	1897 ...	824,000
1903 ...	1,219,000	1896 ...	716,000
1902 ...	1,200,000	1895 ...	889,000
1901 ...	1,048,000	1894 ...	755,000
1900 ...	866,000	1893 ...	816,000
1899 ...	1,126,000		

### Total Shipments January to June.

	Amst. lbs.		Amst. lbs.
1905 ...	7,107,000	1898 ...	4,917,000
1904 ...	6,198,000	1897 ...	3,334,000
1903 ...	5,785,000	1896 ...	3,976,000
1902 ...	5,399,000	1895 ...	3,768,700
1901 ...	5,217,000	1894 ...	3,743,000
1900 ...	4,118,000	1893 ...	4,060,000
1899 ...	5,090,800		

In the drug-auction 14 bales of common Calisaya sold at 2½d. per lb.

**COCOA BUTTER**.—At the Amsterdam auction held on July 4, 55 tons of Van Houten's sold at from 67c. to 68c. (average price 67.35c.) against 64.15c. paid at the previous auction; 8 tons De Jong sold at 62½c. to 62c., and 10 tons Mignon were offered, of which 4,800 kilos. sold at from 62c. to 62½c. At the London auction 50 tons Cadbury's "A" brand sold at from 1s. 0½d. to 1s. 0½d. per lb., being steady.

**CODEINE**.—The makers have advanced their prices from 6d. to 7d. per oz., and now quote as follows: Codeine, pure crystal, 9s. 5d., and precip. 9s. 5d., hydrochloride 8s. 6d., and sulphate 8s. 6d., phosphate 7s. 6d. per oz. net; 100-oz. contracts for delivery over six months are quoted 3d. per oz. less.

**GUM ARABIC**.—Soudan gums continue firm, holders asking from 25s. to 26s. per cwt. for sorts. Four cases of pale picked Trieste gum were held in auction at 77s. 6d. per cwt.



INSECT-POWDER is in good request at prices ranging from 40s. per cwt. and upwards, according to quality. The Trieste insect-flower market is stated to be very firm and in upward tendency, owing to unsatisfactory reports concerning the new crop.

LITHIA SALTS.—The following are the present official quotations from makers: Lithia carbonate B.P. 7s. 2d., citrate cryst. B.P. 4s., and salicylate 2s. 9d. per lb.

MORPHINE.—An advance of 3d. per oz. has taken place in the price of morphine and salts, the manufacturers' prices being as under:

		100-oz. Con- tracts	250-oz. Con- tracts
	s. d.	s. d.	s. d.
Morphine acetate ...	4 9	4 8	4 7
„ hydrochlor. cryst. ...	4 11	4 10	4 7
„ hydrochlor. pulv. ...	4 9	4 8	4 7
„ meconate ...	5 11	5 10	5 8
„ pur. cryst. ...	6 1	6 0	5 11
„ pur. precip. ...	5 11	5 10	5 9
„ sulphate cryst. ...	4 11	4 10	4 9
„ sulphate pulv. ...	4 9	4 8	4 7
„ tartrate ...	5 11	5 10	5 9

The above prices are per oz. net, and no falling clause.

OIL, CASTOR, is steady. Hull make is quoted 23l. 15s. per ton for firsts and 21l. 15s. for seconds; to September delivery 24l. and 22l. respectively, ex wharf, London.

OIL, COD-LIVER.—Our Bergen correspondent writes on July 3 that the "market continues rather dull, as is usual at this season. Most of the refiners have now ceased freezing, owing to the high temperature, such conditions requiring too much ice, and thus there is no urgent demand. Holders are, however, not disposed to quote lower prices, and at the quotation of 70s. per barrel f.o.b. Bergen the market may be indicated as firm." The exports from Bergen up to date amount to 5,477 barrels, against 3,658 barrels at the corresponding date of last year.

OILS, ESSENTIAL.—The list price of English oil of *Cara-way* has been advanced to 6s. per lb., owing to the rise in seed. *Clove* oil is unaltered at from 2s. 10d. to 3s. per lb. for best, according to quantity. English *Lavender* oil is quoted 23s. per lb. net, and English *Peppermint* 31s. net. Sales of Ceylon *Citronella* oil are reported in drums at 1s. 2d. per lb., c.i.f.; and in *Star Aniseed* oil spot business was done last week at 4s. 5d., but nothing is now obtainable below 4s. 7d. We have received an advice from Tasmania that the demand for *Eucalyptus globulus* oil is greatly on the increase, so much so that one of the principal manufacturers is extending his plant and working night-shifts, having sufficient orders in hand to keep him busy until September, apart from the fact that the winter trade in Australia is just commencing. The following are current quotations for Messina oils of new crop: *Bergamot*, extra pure, 8s. 5d.; sweet *Orange*, 7s. 3d., and bitter, 7s. 5d. per lb., f.o.b. Messina. French oil of *Spike* is quoted from Grasse at 5s. 5d. per lb., and *Rosemary* at from 2s. to 4s. per lb., according to quality. The price of best oil of *Lemon* from Messina has been cabled over to-day at 3s. per lb. c.i.f. terms.

OIL, PEPPERMINT.—Quiet. Japanese dementholised is obtainable at 4s. on the spot for Kobayashi. August-September steamer shipment has been sold at 3s. 9d., c.i.f., for Suzuki. American GHG can be had at 14s. 9d. per lb.

OILS, FIXED.—*Linseed* is easier at 19s. 3d. per cwt. in pipes and 19s. 4½d. in barrels. Cochin *Cocunut* on the spot is quoted 34s., and Ceylon 28s. 6d. per cwt. Refined *Rape* is quiet at 23s. spot, and 22s. for ordinary brown. *Cottonseed* is quiet at from 17s. 6d. to 19s. 9d. per cwt. for refined. *Turpentine* is lower at 44s. 6d. per cwt. for American on the spot.

QUININE.—Business continues suspended in the speculative market, sellers of B. and S. and/or Brunswick asking 9½d. per oz.; for new make 9¼d. to 9¾d. is about the value,

but the absence of business prevents prices being established. From the figures given below it will be seen that the London stock has been considerably reduced, and that practically no quinine was landed during June.

The landings during June were 1,504 oz. only, and the deliveries 65,472 oz., leaving a stock of 3,079,232 oz., as against 3,404,272 oz. at the corresponding period of 1904.

ROSE-PETALS.—French are firmer, the lowest price this week being 1s. 9d. per lb., c.i.f. Dutch are quoted 2s. 3d., c.i.f.

SALICYLATES are on the eve of an advance of probably from 2d. to 3d. per lb., but the figures were not officially known on 'Change to-day. The present unremunerative prices have been in force now for about two years.

SALOL will probably be advanced 5d. to 6d. per lb.

SHELLAC.—The market closed with a firm tone last week with few sellers, the spot value of fair TN being 147s. 6d. to 150s. per cwt. These figures have been well maintained this week also, the moderate spot sales including ordinary to fair TN at from 145s. to 150s. Holders of AC Garnet on the spot are asking 145s.—an advance of 5s.; 140s. has been paid for blocky. For delivery prices are again dearer, September having sold at 150s. and October 153s. to 155s. per cwt. As was anticipated, the deliveries during June exceeded five thousand cases, which shows that the consumptive demand has improved.

SODA NITRATE is easier at 11l. 3s. 9d. per ton for ordinary, and 11l. 7s. 6d. for refined.

An appreciable fall has taken place in the Continental markets for nitrate of soda, the consuming season for which is now at an end. From the equivalent of 11s. 3d. per cwt. a month ago in Hamburg the spot price has come down to 10s. 1½d., while there are sellers of spring delivery, 1906, at 10s., and 1907 at 9s. 6d. The reaction has been even more severe at Dunkirk, where it is said something like panic prevails. The fall has been precipitated by the slump in beet sugar, but it is mainly attributable to the tardy recognition of over-production.

SPICES.—At auction the small supply of 170 barrels Jamaica *Ginger* was offered, of which a few only sold at 51s. per cwt. for middling bright. Cochin also met with a slow demand, about 50 packages selling at barely steady prices, including small and medium mouldy washed at 18s., and fair cuttings at 17s. Mouldy Japan was bought in at 17s. per cwt. Of *Pepper*, 21 bags of Malabar offered and sold at 5½d. for fair bold, 5½d. for small shot. Grey Singapore was bought in at 5¾d., which is the price asked privately. Fair *White* Singapore sold in auction at 8¼d. per lb., being dearer; this price is asked privately, the value of fair Siam being 7½d. and fair Penang 7½d. per lb. *Pimento* was easier at auction, partly selling at 2½d. for fair. *Nutmegs* were quiet, nine packages of West Indian (103 to the lb.) selling at 6d. to 6½d. per lb.; *Mace* was not offered. Fair picked Penang *Cloves* were offered and bought in at 1s. A large speculative business has been done this week at advancing prices, the sales including August-October up to 5½d., September-November 5¾d., and October-December at 5½d.

TARTAR EMETIC.—The rise in antimony has brought about an advance, pure crystals or powder being offered in one direction at 8d. per lb. net.

### London Drug Auctions.

Although the auctions to-day included both first and second-hand drugs, a less quantity than usual was offered, and the sales were concluded by 1 p.m. The tone throughout was exceptionally dull, there being few buying orders about. The chief alterations were as follows: Cape aloes brought firm rates, and for Curaçoa, which are now getting very scarce, advanced prices were paid. Buchu leaves were firm and tended dearer. Sumatra benzoin was quiet and easier. Cardamoms met with a dragging demand, and also tended easier; seeds, however, were firmer. Ceylon coca-leaves were firmer, but dragon's-blood declined 20s. to 30s. Gamboge was barely steady, and for Jamaica honey easy prices were paid. Jalap was lower, and for Rio ipecacuanha fully private prices were paid. Myrrh was firm, and horny High-dried rhubarb was fairly steady. Tinnevely senna was without interest, and beeswax was quiet, the accumulated stocks giving the



market an easier feeling generally. The following table shows the amount of goods offered and sold:

	Offered	Sold		Offered	Sold
Ajowan-seed.....	51	51	Ipecacuanha—		
Aloes—			Cartagena .....	1	1
Cape .....	25	9	East Indian .....	8	1
Curaçao .....	57	52	Rio (Matto Grosso) ..	12	5
Socotrine .....	10	0	Jaborandi .....	2	0
Zanzibar .....	16	0	Jalap .....	68	48
Ambergris.....	2	0	Kamala .....	5	0
Annatto-seed .....	33	0	Kola .....	1	1
Antimony (Jap.) ..	19	0	Lime-juice.....	41	1
Argol .....	37	0	Medicine-root .....	5	0
Arrowroot .....	1	0	Menthol .....	11	0
Balsam—			Myrrh .....	76	8
Copaiba.....	1	0	Nux vomica .....	198	0
Peru .....	5	1	Oil—		
Tolu .....	19	2	cajuput .....	5	0
Bêche-de-mer .....	3	0	cassia.....	6	0
Benzoin—			cinnamon .....	1	0
Palembang .....	21	0	eucalyptus .....	43	0
Saigon .....	15	0	nutmeg .....	6	2
Siam .....	3	0	peppermint (Jap.) ..	10	0
Sumatra .....	124	18	rose.....	5	0
Buchu.....	47	3	wood .....	50	0
Calumba .....	23	0	Olibanum .....	10	10
Canella alba .....	17	0	Orange-peel .....	25	4
Cannabis indica ..	13	0	Orris (Ver.) .....	15	15
Camphor .....	49	0	Patchouli-leaves ..	59	0
Cardamoms .....	231	135	Putcha-leaves .....	21	0
Cascarilla .....	20	0	Quince-seed .....	11	0
Cashew nuts.....	5	0	Rhatany.....	38	0
Cassia fistula .....	8	8	Rhubarb (China)....	63	8
Chillies (Zan.) .....	15	0	Sarsaparilla .....	7	1
Cinchona .....	53	14	Scablae .....	51	0
Civet .....	3	0	Seedlae .....	21	0
Coca-leaves .....	40	40	Senega .....	5	0
Cubebs .....	66	45	Senna—		
Cumin-seed .....	32	0	Alexandrian.....	2	2
Cuttle-fish bone ..	130	20	Tinnevely.....	106	29
Dragon's blood .....	41	8	Tamarinds (W.I.) ..	3	0
Ergot .....	16	0	Tonka-beans.....	10	0
Fennel-seed .....	32	0	Turmeric .....	298	0
Gamboge .....	27	3	Vermilion .....	5	0
Gentian .....	23	23	Wax (bees)—		
Guaiaicum .....	8	8	Aden .....	11	0
Gum arabic .....	11	1	East Indian .....	19	0
Gum euphorbium ..	2	0	Jamaica .....	32	2
Honey—			Madagascar .....	254	47
Jamaica .....	197	125	Zanzibar .....	191	0
Insect flowers .....	5	0	Zedoary-root .....	10	0

**AJOWAN-SEED.**—Fifty-one bags of nondescript quality from Calcutta sold at 4s. 6d. per cwt. subject.

**ALOES.**—The stock of all kinds is now very much reduced and prices are tending higher, especially in the case of Curaçao, which sold at advanced rates to-day. Fifty-seven boxes realised from 40s. to 45s. per cwt. for good to fine bright liver, 34s., subject, for fair liver, 25s. to 30s. for part capey and turning livery, 22s. 6d. for dull liver, and 18s. to 20s. for common drossy, partly water-damaged. Of Cape aloes 25 cases were offered, and nine sold at full to firm rates, 27s. to 29s. being paid for fair to good bright hard. Good stiff pasty Socotrine were limited at 80s. and softer ditto at 75s. per cwt. The United States cannot offer Curaçao, and have refused orders.

**AMBERGRIS.**—Two tins of dark, slightly grey pieces, of fair flavour, were bought in at 45s. per cz.

**ANNATTO-SEED.**—Several lots were held at from 6½d. to 7d. per lb. for fair Madras.

**ANTIMONY.**—Dearer. In auction a broker asked 37l. 10s. per ton for 19 cases of Japanese crude.

**BALSAM COPAIBA.**—A cask of cloudy Maranham was held at 1s. 6½d. per lb.

**BALSAM PERU.**—A case of fair of direct import from Acajutla sold at 4s. 2d. per lb.

**BALSAM TOLU.**—Two cases of softish in large tins sold at 8½d. per lb.

**BENZOIN.**—Quiet and easier. Good almondy Sumatra seconds, well packed and of slightly storax flavour, sold at 6l. 5s. per cwt., and for ten cases of fair, partly false packed, 5l. 10s. per cwt., subject, was paid. Several new parcels of Saigon were offered and bought in, including small to bold pale loose almonds at 18l., dark pickings at 5l., and dusty pea and bean size at 90s. Fair small to medium reddish Siam almondy in block was held at 10l., and for siftings in hard block 5l. 10s. was wanted.

**BUCHU.**—Firm. Fair, green, round leaves sold at 6d. per lb., and a parcel of 23 bales of ordinary yellowish round leaf was limited at 5d. per lb. For a bale of good green 6½d. was refused.

**CAMPHOR.**—Two cases of Japanese refined in 1-oz. tablets were firmly held at 3s. 2d. per lb. net.

**CANNABIS INDICA.**—Good green tops are obtainable at 4s. 3d. per lb., and siftings at 4s.

**CARDAMOMS** met with a dragging demand at rather easier prices. *Seed*, however, was firmer. The rates paid were as under: Ceylon-Mysore, good bold pale, extra well-bleached round 1s. 8d., bold round pale 1s. 4d., bold and medium pale well-bleached 1s. 1d., small and medium pale 10d., small round pale 8d. to 9½d., bold split 10d., brown and splits 7½d. to 8d. Mangalore character from Calicut, medium long good pale, 1s. 2d. Fair to good dark seed 10½d. to 1s. 1d., and foxy 8½d. Tellicherry, bold round brown 1s. to 1s. 3d., small and medium brown 8½d. to 9d., and damaged 6d. to 6½d. per lb.

A correspondent of the "Madras Mail" at Pollibetta, Coorg, writes that the cardamom crop prospects are of the gloomiest, as a large proportion of the finest plants have died owing to the exceptionally dry season. This throws back all hopes for two or three years; and those who depended on this season's prospects are in a deplorable position, some being practically ruined.

**CASSIA FISTULA.**—Eight bales of ordinary West Indian pod sold at 12s. per cwt.

**COCA-LEAVES.**—Firmer. Forty packages of Ceylon (Huanuco character) sold at from 1s. 2d. to 1s. 3d. per lb. for fair to good green partly-broken leaves, and for brownish from 10d. to 11d. was paid, with fair, slightly country damaged, at 1s.

**CUBEBS.**—A parcel of stalky brown berries sold without reserve at from 25s. 6d. to 26s. 6d. per cwt.

**CUTTLEFISH BONE.**—Extra bold pale Bombay bone realised 7d. for 10 bales, and for a further 10 bales of broken pale 3d. was paid; badly sea-damaged brought 1d. per lb.

**DRAGON'S-BLOOD.**—About 20s. to 30s. per cwt. cheaper, owing to the large supplies offered. Three cases of good bright seedy lump sold without reserve at 7l. 17s. 6d. to 8l., and for good re-boiled lump, partly mixed, from 7l. to 7l. 2s. 6d. was paid, also without reserve.

**GAMBOGE.**—Steady. Good blocky Siam pipe, of bright fracture, rather damp, was bought in at from 16l. 10s. to 17l. per cwt., bids of 14l. 15s. to 14l. 17s. 6d. being refused. Two cases of very blocky sea-damaged pipe sold at 12l. 15s. subject, and a case of ordinary pickings brought 12l. 12s. 6d. per cwt. subject.

**GENTIAN.**—Twenty-three bales sold at 16s. for lean quality.

**GUAIACUM.**—Eight barrels of fair glassy block sold at from 8½d. to 8¾d. per lb., slightly drossy at 7d., and common drossy at 5¾d. to 6d. per lb.

**HONEY.**—Steady. Fair to good bright pale amber Jamaica liquid, in barrels, sold at from 21s. to 23s. 6d.; pale yellowish pasty, in cases and casks, 21s., and set in barrels 20s. 6d. per cwt.; ordinary to fair reddish brown liquid, in barrels and cases, 17s. to 21s.

**INSECT FLOWERS.**—Five bales of open Dalmatian flowers were held at 70s. per cwt.

**JALAP.**—Lower. Thirty-eight bags of fair small to bold Vera Cruz (without analysis) sold without reserve at 3¾d., with one lot at 4d. per lb. From another catalogue 10 bags containing, according to Umney's analysis, 11.7 per cent. of resin, sold at 4¾d. per lb.

**KAMALA.**—The price for good bright East Indian is 7d. per lb.

**LIME-JUICE.**—A puncheon of common raw Demerara sold at 10½d. per gal.

**MENTHOL.**—The activity in this article has subsided, and although no relapse has occurred, last week's prices could probably be shaded for spot supplies: 6s. 4½d. is about the price. In auction 6 cases of Japanese Kobayashi brand slightly blocky were bought in at 6s. 6d. per lb.

**MYRRH.**—Firm. Ten bales of good pale Aden sorts apparently sold at 95s. cwt. Nine other packages, of which no sample was shown, had been disposed of privately.



**IPECACUANHA.**—Firm. A few bales of Rio sold in auction at 5s. 3d. for fair lean, and at 5s. 4d. for a bale of good bright. Five bales of Johore were also offered, of which one sold at 5s. 2d. per lb. subject for good bold root, apparently made merchantable from the sea-damages of last auction. A bale of fair grey Cartagena sold at 4s. 10d. per lb., subject. Privately there has been a fair demand for Rio, and quite half-a-dozen bales have been sold at 5s. 3d. per lb. It would now be difficult to find more at this figure, 5s. 4d. to 5s. 6d. being asked, according to quality. About 30 bales of Rio have arrived this week.

The following figures relate to the stocks of ipecac. in the warehouse on June 30 last; also values at this date:

—	Matto Grosso	Minas	"Johore"	Cartagena
1905 Value	189 5/3	37 5/1	9 5/3	15 5/-
1904 Value	290 4/3	58 4/3	22 4/3	74 4/4

The new U.S.P. now recognises Cartagena ipecacuanha as "official."

**OIL, CAJUPUT.**—For good green Singapore 3s. 3d. per bottle is wanted.

**OIL, EUCALYPTUS.**—In the drug-auction, oil containing 72 to 73 per cent. cineol was limited at 1s. 2d., 65 per cent. cineol at 1s., and Magnet brand at 1s. 3d. per lb.

**OIL, NUTMEG.**—Two cases of Fisher's brand sold at 2d. per oz.

**ORANGE-PEEL.**—Fair bright Tripoli gelatine strip was limited at 6d. per lb. and four bags of Maltese ringlets were sold at 4½d. per lb.

**ORRIS.**—Fifteen bags of ordinary Verona sold without reserve at 12s. per cwt.

**RHATANY.**—For 38 bales of chunky Peruvian 1½d. per lb. was wanted.

**RHUBARB** was quiet but firm, the sales including a few cases of round rough horny High-dried at 9½d. per lb. Two cases of medium flat Shensi, slightly roughly trimmed, with three-quarters pinky fracture, sold at 1s. 9d. per lb. A case of common dull-coated Shensi mixed with Canton and High-dried sold without reserve at 1s. Several cases of Shensi and Canton had been disposed of privately.

**SARSAPARILLA.**—Only one bale of grey Jamaica was offered and realised 1s. 2d. per lb. Six bales of native Jamaica were held at from 9d. to 10d. Privately grey in second-hands is very scarce, one holder asking 1s. 5d. Twelve bales of Lima-Jamaica have arrived this week; 1s. 3d. per lb. is quoted from second-hands.

**SENNA.**—Although seven brokers brought forward supplies, the total only amounted to 106 bales, mostly in second-hands, for which there was little bidding. Small common specky Tinnevely leaf sold at 1½d., and middling greenish partly specky 1½d. to 1¾d. per lb. Two bales of Alexandria siftings sold at 2½d. per lb. Alexandrian pods have been practically non-existent on this market for several weeks.

**TONKA BEANS.**—Ordinary Pará were offered at 8d., and for good frosted ditto 1s. 3d. was wanted.

**WAX, BEES',** was in slow demand generally, as is usual after the half-yearly stock-taking. Jamaica was dull of sale, only two packages being disposed of at 8l. 15s. for good, part dark. Ordinary qualities were held at from 8l. 2s. 6d. to 8l. 5s. per cwt., with fair at 8l. 10s. Good pale Madagascar block was sold at 7l., and fair pale to dark held at 6l. 12s. 6d. to 6l. 15s., with common at 5l. 10s. Several lots of Zanzibar are under treaty and bids of 6l. 15s. per cwt. are to be submitted for good even brown block.

### Heavy Chemicals.

Business in the heavy-chemical market practically continues without change from that indicated in recent reports. At all the principal centres there is a fairly satisfactory, although quiet, demand on home trade account, and at the export centres demand is, if anything, rather better. Values all round are for the most part steadily maintained at unaltered figures.

**SULPHATE OF AMMONIA** continues on the weak side, and quotations are slightly lower. Beckton 12l. 15s., Beckton terms 12l. 10s., London 12l. 12s. 6d., Leith 12l. 12s. 6d., and Hull 12l. 10s.

**BARIUM PRODUCTS.**—The all-round demand in this department keeps up well, and values are well maintained in tone. Chloride of barium, ordinary refined crystals in large casks, 6l. 10s. to 7l. per ton, and in bags 6l. 5s. to 6l. 15s. per ton, and there is quite a possibility of higher figures ruling. Blanc fixe, pure precipitated sulphate of barium, in paste form, 6l. 2s. 6d. to 6l. 12s. 6d. per ton in 8-9 cwt. casks. The pure blanc fixe in dried condition is in strong demand, and firm at 8l. 10s. to 9l. 10s. per ton in casks. Mineral sulphate of barytes, ground, in good average request at unaltered figures of 40s. to 100s. per ton according to quality, quantity, and package. The mineral carbonate of barytes, witherite, is in heavy request and very scarce; prices, varying according to percentage, quantity, and package, are only nominal, and are subject to arrangement of delivery. Sulphide of barium, crude calcium, 70 to 75 per cent., 4l. 5s. to 4l. 15s. per ton in 7-8 cwt. casks. Hydrate of barium is in fair request at 13l. to 14l. per ton for crystal quality in 6-7 cwt. casks. The fused concentrated quality, 56 to 60 per cent. BaO, is in heavy demand and scarce, and consequently prices tend higher; solid in drums, 13l. 10s. to 15l. per ton. Nitrate of barium steadily maintains a strong position and is in good all-round demand, crystals at 17l. 10s. to 18l. per ton, and powdered at 17l. 15s. to 18l. 5s. per ton.

### German Drug-market.

Hamburg, July 4.

Business conditions continue much as previously reported. The drug-market shows little animation.

**ANTIMONY** is unchanged at 70m. per 100 kilos.

**CAMPHOR** (Refined) is quiet; makers ask 675m., and second hands 650m. per 100 kilos.

**CARNAUBA WAX** is flat; grey is quoted 260m. up to 410m. per 100 kilos. for fine yellow.

**CANTHARIDES** are lower at 8½m. per kilo.

**ERGOT** is flat at 260m. per 100 kilos.

**FENUGREEK-SEED.**—Indian is lower at 15m. per 100 kilos.

**LYCOPodium** is still declining; spot is 650m., and forward 575m. per 100 kilos.

**MENTHOL**, after some covering in of "blanco" sales, is quieter again; spot 15m., forward 14½m. per kilo.

**Opium** is firmer at 18m. per kilo.

**QUININE** is quiet at 29m. per kilo.

**CITRIC ACID** is tending firmer at 240m. per 100 kilos.

**MYRRH** is quieter at 175m. per 100 kilos.

**SPIRMACETI** is firm at 250m. per 100 kilos.

**OILS (FIXED).**—Castor oil is firm; first-pressing in barrels is quoted 47½m. per 100 kilos. Cod-liver is steady, non-congealing oil being quoted 72m. per barrel. Chinese wood is firm on the spot at 61½m., and for shipment 53m. per 100 kilos. is quoted.

**OILS (ESSENTIAL).**—Peppermint (H.G.H.) on the spot is quoted 14½m. per lb., and Japanese 9m. per kilo. Staranise is unchanged at 10½m. per kilo., and citronella oil is firm.

### American Drug-market.

New York, June 27.

Business is quiet, more so than usual at this season of the year. The drug-market is not active, though the position of several articles is attracting much attention. This is notably the case with some of the indigenous crude drugs.

**ALOES.**—Curaçoa are strong under the influence of adverse reports as to the new crop. Demand is active, with 4½c. to 5c. asked, though dealers are not anxious to sell at the inside figure.

**BUCHU LEAVES.**—Prime green are easy at 15c., with slightly off colour obtainable at 14c.

**CASCARA SAGRADA** is receiving considerable attention. The spot market is firm at 6½c. for 1904 bark. Western dealers anticipate high prices for this year's crop, though future shipments have been offered at 6c., f.o.b. New York.

**CITRONELLA OIL** is quiet but firm at 36c. for bulk oil.

**GOLDEN SEAL** is quiet, with \$1.50 asked for prime fall root.

**IPECAC** is firmer, with both varieties quoted at \$1.35.

**JALAP** is firm at 9c. for new crop, but some dealers are not willing to pay this figure.

**JAPAN WAX** is easier owing to the general dullness, and 11c. will buy.

**MENTHOL** is firmer, and \$1.80 is now the inside quotation.

**Opium** is firmer, with most dealers asking \$3.05 for cascs, though \$3 will still buy for prompt delivery.

**PEPPERMINT OIL** is dull on the spot, with bulk nominal at \$2.75. Western dealers are firmer in their ideas, and ask higher prices. H.G.H. is quiet at \$3.25.

**QUININE** is quiet and unchanged, only jobbing lots receiving attention. German is offered from second-hands at 19½c. and Java at 19c.

**SENEGA ROOT** is easier, and 62c. is a nominal figure for Western.

**THYMOL** is firmer, with \$1.65 asked.



## Summer Outings.

### A Southend Trip.

THE annual excursion of the employés of Messrs. Geo. Curling, Wyman & Co. took place on July 1. the resort selected being Southend. An excellent repast was provided at the London Hotel at 2 p.m., the chair being taken by Mr. J. G. Gregory. Amongst the speakers were Messrs. W. Carter White and F. Fitch.

### Keystone Enjoyment.

THE employés of Stephen Smith & Co., Ltd., Bow, E., numbering just one hundred, had their annual excursion at Brighton on June 24. Leaving London Bridge about 8 a.m., Brighton was reached a few minutes before ten o'clock. The party was driven from the station to headquarters for light refreshments previous to journeying to the Devil's Dyke for a couple of hours' amusement. Dinner was served at Brighton at two o'clock, and during the afternoon the party took advantage of the many facilities for enjoying the beauties of Brighton. Tea was served at six o'clock, after which the managing director (Mr. H. J. Hall) made the usual presentations to the women members of the staff who had been in the service for five years and upwards. Dr. MacCabe (Chairman of the Company) and Mr. W. J. Shannon (another of the directors) were also present. Everyone spent a most enjoyable day.

### From Exe and Avon.

THE annual outing of the combined staffs of the Bristol and Exeter houses of Messrs. Evans, Gadd & Co., Ltd., was held on July 1. The party drove in brakes from Exeter—the Bristol contingent having previously travelled to that city by train—to Chudleigh. A halt was made here to allow an inspection of the famed caves and glen. The drive was then resumed as far as Bovey Tracey, where dinner was served at the Dolphin Hotel. The company, numbering over seventy, sat down under the presidency of Mr. Henry Gadd, J.P., the Vice-Chairmen being Mr. W. J. Wippell and Mr. H. Wippell Gadd. After dinner the loyal toast was honoured and Mr. B. C. Eveleigh proposed "Prosperity to the Company," which was responded to by the Chairman and by Mr. W. J. Wippell. The Chairman, in the course of his speech, referred in feeling terms to the death of Mrs. W. J. Wippell and of Mr. Hancock, a valued member of the Bristol staff. Mr. H. Wippell Gadd proposed the "Travellers," which was responded to by Messrs. James Taylor, W. F. Gadd, F. P. Edwards, B. C. Eveleigh, and J. Vincent. Mr. S. C. Gadd gave the "Indoor Staff," this being responded to by Messrs. T. H. Smyth (office), C. Mahle (Bristol warehouse), and E. H. Welsford (Exeter warehouse). After dinner the party separated, the Exeter staff driving to Moretonhampstead, where tea was served at the White Hart Hotel, and subsequently returning to Exeter by road. The Bristol party, who returned direct to Exeter from Bovey Tracey in order to catch their train, were served with tea at the Franklin Hotel, and subsequently inspected the offices, warehouses, and laboratories of the company. The party was then conducted over the Cathedral by the Rev. Treasurer Atherton, who described the points of interest in the architecture and history of the building.

[Reports of the Derby and Plymouth Associations are also in type.]

## College Notes.

MANCHESTER UNIVERSITY.—The students of the Pharmaceutical Department, Manchester University, brought the session to a close with a botanical excursion to Marple on July 5. The party, under the leadership of Mr. James Grier, Ph.Ch., Lecturer on Pharmacy, walked from Marple to Strines, and

collected about forty specimens, including rue, valerian, bittersweet, tormentilla, dog rose, elder, and foxglove. The exceptionally large umbelliferous fruits of the sweet cicely, well described in Grierson's "Fields and Lanes," and its strong aniseed odour, made this plant an object of interest.

NORTHERN COLLEGE OF PHARMACY.—On June 30 the students of this college held their final botanical excursion of the session, the district visited being Knutsford. A large party left the Central Station, Manchester, in reserved compartments, and on reaching Knutsford divided into two groups, which, under the leadership of Mr. George Clayton, F.C.S., and Mr. Fred. Lawson, B.Sc., proceeded across the country to Peover Church. This locality, one of the richest, from a botanical point of view, in Cheshire, yielded a very fine collection of specimens, representatives of all the natural orders in the Minor Schedule being found and dissected. Tea was provided at the Warren de Tabley Arms by the Principals, and after an enjoyable musical evening the party returned to Manchester at 8.45 p.m.

### WHERE TO STUDY.

THE FOLLOWING EDUCATIONAL INSTITUTIONS are advertising in this issue:

Muter's School of Pharmacy, 325 Kennington Road, S.E.  
Westminster College of Chemistry, Trinity Square, Borough, S.E.  
Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.  
London College of Chemistry, 323 Clapham Road, S.W.  
Royal Dispensary, 21 West Richmond Street, Edinburgh.  
Liverpool School of Pharmacy, 6 Sandon Terrace, Liverpool.

## Recent Wills.

KEATING.—Probate of the will, dated May 22, 1902, of Miss Mary Anne Lucy Keating, 2 Princess Terrace, Bayswater, who died on May 28, aged eighty-five years, eldest daughter of the late Thomas Keating, formerly of St. Paul's Churchyard, has been granted. The gross value of the estate is 44,858*l.* 12*s.* 5*d.*, the net personalty being sworn at 44,746*l.* 3*s.* 4*d.* Miss Keating bequeathed sums varying from 50*l.* to 500*l.* to charities and religious institutions, including 100*l.* to the Homœopathic Hospital, London. Legacies are also given to her household servants, as well as 100*l.* to Mr. H. D. Preston, clerk in the Thomas Keating business; 75*l.* to Mr. John Budd'e, foreman; 30*l.* each to assistants, Mrs. Nott and Mrs. Vail; 50*l.* each to her servants and employes of twenty-five years' service; 25*l.* to those of fifteen years' service; and to those of over three years' service 1*l.* for each year of service. To Mr. John Wy'd'e, who was long and faithfully associated with her in the business, and who continues it, she bequeathed 550*l.* Subject to numerous specific bequests, she left the residue of her household effects for distribution between eight nephews and nieces, and the residue of her estate to her nephew Mr. Herbert Edward Kirby, Miss Ada Green, and Mr. William Henry Cortlandt Mahon in equal shares as tenants in common. She requested her trustees, as far as possible, to refrain from disturbing the capital which she had invested in the business.

YATES.—Mr. Francis Yates, pharmaceutical chemist, of Aysearth, Avenue Elmers, Surbiton, and formerly of the firm of Messrs. Davy, Yates & Routledge, 64 Park Street, Southwark, who died on May 11 last, aged seventy years, left estate valued at 120,701*l.* 0*s.* 5*d.* gross, including 118,719*l.* 18*s.* 8*d.* in net personalty. His brother, Mr. Robert Yates, of the same firm, who died on April 18, aged sixty-four years, left an estate of 71,171*l.* The executrix and executors of Mr. Yates' will, dated March 15, 1905, are his widow, Mrs. Mary Jane Yates, and his friends, Mr. Richard Henry Hodge, of Highgate; Mr. Andrew Mount Haes, of Streatham Hill, and Mr. Edward Mount Haes, of 17 Bishopsgate Street, stockbroker, to the last three named of whom he bequeathed 250*l.* each. He also bequeathed to George Largon and Robert William Buswell annuities of 19*l.* 19*s.* each, to William Alfred Ewing and Henry Joseph Todman annuities of 13*l.* each, and to William Moore during the joint lives of his wife and himself an annuity of 25*l.* Mr. Yates bequeathed to his sons Francis Henry and John 300*l.* a year each during the life of their mother, and to his daughters Ethel, Marguerite, Amy, Lilian, and Marian annuities of 200*l.* a year each during the life of their mother; and he left to her 1,000*l.* his consumable stores, and personal effects, the use and enjoyment of his household effects, and the income during her life of his residuary estate, which, subject to her interest, he left in trust for his seven children.



# Exchange Column—Bargains.

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**Cooley's "Cyclopaedia"** in 2 vols., 7th edition, perfectly new, what offers? TIMMINS, Chemist, West Hartlepool.  
**Books on Massage, Medical Electricity, Surgery, Medicine, &c.**; list. "CHEMIST," 27 Marylebone Lane, London, W.  
**50 Books.**—Chemistry, botany, pharmacy, anatomy, surgery, physiology, skin diseases. State wants, list, "CHEMIST," Thaxted, Essex.  
**What offers, cash?** Green's "Botany," Newsham's "Chemistry," Squires' "Companion," Southall's, "Selecta Præscript.," never been opened. "A.," 37 High Street, Uxotexeter.  
**All recent, post free:** "Pharmacopœdia," 9s.; "Lowson," 3s. 4d.; "Greenish," 9s.; "Squire," 5s. 4d.; "Whitla," 5s. 6d.; Knight's "Materia Medica," 6s.; "Green," vol. I., 3s. 10d.; vol. II., 5s. 4d.; Bower's "Practical," 2s.; "Art Dispensing," 2s. 6d.; "Newth," 3s. 9d. JACKSON, 2 Queen Street, Belfast.

### DRUGS AND CHEMICALS.

**1 cwt. grand foreign hops**, 6d. lb. BUTTERWORTH, 354 Stretford Road, Manchester.

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**Complete set of rare and valuable formulas** suitable for manufacturers of essences; to the mineral trade, confectionery, quintessences, &c.; all practical, genuine, and reliable. For price and terms apply, 60/19, Office of this Paper.

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**24 Botanical slides**, 7s. 6d.; **12 materia medica slides**, 4s.; double-stained. "RHEUM" (61/38), Office of this Paper.  
**Excellent microscope**, two objectives, suitable for Minor students; sale or exchange typewriter. 58/27, Office of this Paper.

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**Ten Stuart's dyspepsia tablets**, 15s. 6d.; **two 2s. 6d. coupon bottles** Birley's plain phosphorus, 3s.; post free. LAWRENSON, Chemist, Bognor.  
**Gross Keene's corn cure**, 7d., 4s. 9d. doz., carriage paid. 61/21, Office of this Paper.

### SHARES.

**Shares for Sale.**—See p. 62.  
**240 Idris "A"** preference shares for sale, all or part. Apply, COOPER, Chemist, Sutton, Surrey.

### SHOP FITTINGS.

**Two large specie show-jars and stands** complete; cash, or exchange outside red lamp. Low, Chemist, Portslade-by-Sea.  
**Shop-Rounds.**—Good white flints, 12 doz., well stoppered; also 6 gall. pear carboy. Offers to "Rex" (60/24), Office of this Paper.

**Two 6-gallon carboys**, pear-shaped; 3 pieces glass shelving, polished edges, 5 feet long, 12, 9, and 6 inches ½ thick; window-enclosure, 10 feet by 3½ feet mirror; what offers? 26 St. James's Road, Upper Tooting, S.W.

**A magnificent double American soda-fountain**, by John Matthews, of New York, with patent Nimbo's tumbler-washer, tumbler-holders, &c., complete in every detail; beautiful marble slab, 12½ feet long; this is one of the finest installations in the kingdom. Apply to W. A. Lyness, Chemist, Belfast.

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**Forceps.**—3 pairs unplated, 5 pairs nickel-plated, 13 pairs silver-plated; best cash offer. "CHEMIST," 262 Shalesmoor, Sheffield.

**Copper vacuum pan and pump**, 30 and 40 gall. capacity, second-hand. BENNETT, SONS & SHEARS (LTD.), 167 Kingsland Road, London, N.E.

**National cash-register**, perfect condition (£42), latest model two years ago; accept £32. Full particulars, "VENDOR" (564), Office of this Paper.

**National cash-register**, size 36½, detail strip, &c.; perfect condition, equal to new; list price £40 net cash; what offers? SIMPSON, 19 Chesterfield Road, Meersbrook.

**Surplus stock:** what offers? 10 gross 1d. packets of ginger-beer powders, good quality, perfectly clean, attractive get-up, whole or part. JOHNSTON, Oastle Lane, Hadley, Wellington, Salop.

## WANTED.

**Kneipp's "My Water Cure."** Price to Medical Hall, Finedon.

**Optician's Manual**, vol. I.; state lowest. REX, 10 Fazakerley Street, Chorley.

**Small tincture press**, good order. Make and price to CURT, Chemist, Brighton.

**"B. P."** '98 outside lamp; four 3 or 4 gall. carboys. 60/36, Office of this Paper.

**Small percolator and tincture-press.** Particulars, prices, McLEAN, Netley, Hants.

**Old artificial teeth** bought; cash by return post. DENT, 3 Hinckley Road, Leicester.

**"The Chemist and Druggist,"** vol. xv., 1874, complete. "KANSAS" (257/13), Office of this Paper.

**Minor books;** chemists' and chemist-opticians' books. Write for particulars, GOWER, Bookseller, Waterloo, Liverpool.

**Mixing and sifting machine** for condiments, 3-gallon tincture press, and state full particulars, net price delivered rail Liverpool, to T. J. DAVIES, M.R.C.V.S., 28 Brunswick Street, Liverpool.

### ADDRESSES WANTED.

**Address of makers or agents for Muskadyne wine.** MOORHOUSE, Churchtown, Southport.



## Agricultural and Horticultural Poisons.

### Deputation from the Pharmaceutical Society to the President of the Board of Agriculture.

IN his private room at the House of Commons on Monday afternoon, July 3, the Right Hon. Ailwyn E. Fellowes (President of the Board of Agriculture) received a deputation from the Council of the Pharmaceutical Society in regard to the sale of poisons for agricultural and horticultural purposes. Mr. R. A. Robinson (President) headed the deputation, which included Mr. A. C. Wootton, Mr. W. G. Cross (Shrewsbury), and Mr. Richard Bremridge (Secretary). With Mr. Ailwyn Fellowes were Sir Thomas Elliott (Secretary of the Board of Agriculture and Fisheries), Professor T. E. Thorpe, Mr. Reginald Lucas, M.P., Mr. Almeric FitzRoy (Clerk to the Privy Council), and others.

Mr. Robinson, in introducing the deputation, said he was present with certain of his colleagues of the Pharmaceutical Society for the purpose of conferring with the President on the question of the sale of poisons for agricultural and horticultural purposes. They had not thought it necessary to bring with them any advocate to state their case, preferring to come before him themselves in order to place at his disposal certain information which they had in their possession. In the first place he desired to point out most emphatically that they did not desire in any way to adopt an attitude which was inimical to the horticultural and agricultural interest. On the contrary, many of their members were closely associated with that interest. He would suggest to the right hon. gentleman that, although he had had the case put before him of those who declared that a hardship was inflicted owing to the want of facilities for obtaining agricultural poisons such as sheep-dips and the like, he would come to the conclusion, after an investigation of the whole question, there was no real grievance after all on the part of the farmer. So far as the Society was concerned, they had divisional secretaries all over Great Britain, and they had failed to find any great demand on the part of the farming interest for an alteration in the law. Indeed, there was a very great difficulty in finding any farmer who would come forward and declare that he had experienced any difficulty in getting what he required for agricultural use. It was, of course, perfectly true that Chambers of Commerce and Chambers of Agriculture throughout the country had been moved to pass resolutions intimating that they would like further facilities for the purchase of agricultural and horticultural poisons, but that, he would remind the right hon. gentleman, had been done on the initiative of people other than the farmers themselves. It was, of course, easy to imagine that, if a proposition were brought forward suggesting that further facilities should be granted for the purchase of sheep-dips and the like from persons other than chemists, it might easily be carried by Chambers of Commerce and Chambers of Agriculture throughout the country who might desire such a relaxation of the existing law. He held in his hand a list of a dozen such Chambers of Agriculture and Chambers of Commerce who had absolutely refused to pass any such resolution when they became aware of the source from which it came. He might mention, among others, the case of Liverpool, Tunbridge Wells, Torquay, Dewsbury, Plymouth, Grimsby, Lincoln, Chester, King's Lynn, Stafford, Cleckheaton, London, Bradford, and Huddersfield—all Chambers of Commerce or Chambers of Agriculture—which had declined to pass any resolution declaring that they had experienced any difficulty in obtaining the particular kind of agricultural poison which they required. He suggested to the President that, on inquiry, he would have a difficulty in finding that this was a spontaneous action on the part of the farmers themselves—indeed, the Society's evidence went to show that great difficulty was experienced in discovering representatives of the farming interest who would come forward and declare that they experienced the difficulty to which allusion had been made. He placed these views before Lord Onslow last year, when he occupied the presidency of the Board. There were, he proceeded to

point out, chemists in every town, and in almost every village, in England, and no difficulty was experienced in obtaining what was required, even though it might be so in Scotland. And even if that were the case he suggested that it was not a sufficient reason for calling upon the Government of the day to abrogate the existing law, which governed all parts of the country. In the case of a farmer who resided some miles from a chemist, he could always make arrangements for the purchase of his sheep-dips from the nearest town, or from the manufacturer himself. As he had already stated, the agitation did not emanate from the farmer himself.

#### WHAT PARLIAMENT HAS DONE.

In regard to the Pharmacy Act of 1868, the question as to what was best to be done was thoroughly threshed out by the Select Committee which sat in that year to consider the matter. The House of Commons arrived at the conclusion that the better way to deal with the sale of poisons would be to restrict their sale to a certain class of chemist and druggist. That, it was thought, would be the safer method by far. In that year Parliament was asked to exclude certain poisons, notably laudanum, and a resolution was accordingly passed in the House of Commons to the effect that laudanum should be in future placed outside the operation of the Act. Mr. Robert Lowe brought forward an amendment, but the House of Commons, by a majority of two to one, would not listen to it, and declared that they would not consent to any poisons being exempted. The Arsenic Act was in existence then, and was used for agricultural purposes before 1868. Their experience had been that when poisons were scheduled there was far greater safety to the general public and infinitely fewer accidents. Carbolic acid was used for many years and not scheduled, coroners kept sending up requests, and at length the Privy Council said they would schedule it in a certain way. When it was scheduled the deaths from accident decreased to a striking extent. In regard to the arguments which were laid before the President by the deputation which recently waited upon him, it was not at all conclusive to say that a difficulty was experienced in obtaining these particular sheep-dips and other agricultural poisons in Edinburgh. For instance, very few chemists in London kept them. Personally speaking, his own business was situated in South Kensington and he was never asked for them. If, however, they were to go to, say, York, Grantham, or King's Lynn, they would not experience the faintest difficulty in obtaining what they required. Only on Friday last he was in Tunbridge Wells, where several of the chemists did not keep these preparations. On the other hand, there was a well-known firm with a large agricultural connection which did, and they told him there was not the slightest difficulty in obtaining them. A farmer down there, who had been a chemist in his early days, also told him that the farming interest greatly appreciated the fact that the chemists sold these poisons with so much discretion. They did not want their menservants to be able to buy them easily, and they much appreciated the advice which was tendered by the chemist to the purchaser. He further expressed the opinion that any relaxation of the existing laws would be absolutely disastrous. Wherever there was a demand for these agricultural poisons there was not the slightest difficulty in obtaining them from the ordinary sellers of poisons.

#### CHEMISTS' PRICES.

Then he had to deal with the point that the price of the article might be enhanced if the chemists had the entire monopoly, but upon examination he found that there was nothing whatever in this point. The poisons were sold in packets at a fixed price, and the retailer received a mere pittance. Another point that had been urged was that there would be no more danger to the general public if these goods were obtainable from the local ironmonger



than if they were sold only by chemists. As to this he could only quote the Act of 1868. After an exhaustive inquiry it was thought that it was best in the public interest to restrict the sale of poisons. The chemist, they must remember, had been brought up to regard the sale of poisons as a most serious matter, and never to sell any such preparations unless fully convinced that the purchaser desired them for a proper and legitimate purpose. Very often they had to refuse, and, although it was very much to the advantage of the general public that they should do so, it was not by any means advantageous to the chemist. Although, therefore, the point had been urged that these preparations might be sold by persons other than chemists, it would be found upon examination that safety was ensured by going to the chemist, who was able to give much information and advice, and often persuaded the purchaser not to buy more than he actually required. If he understood the position taken up by the other side, they wanted to have a free sale of poisons all round. It was a mistake to suppose that it would be a great advantage to the farmer if the sale of these preparations was placed in the hands of persons other than chemists. He quite agreed that they did not desire to make it too dear for the farmer, and if he could make these preparations himself at less cost that was the proper way to proceed rather than to force upon him articles which yielded a profit to the manufacturer. The Pharmaceutical Society had been at some pains to find out about the non-poisonous preparations, and from the investigations which had been made, both by their analysts and by the curator of their museum, it had been found that in many instances the non-poisonous forms were equally as efficacious as the poisonous; indeed, the trend of public opinion to-day was rather against the use of poisonous compounds. At the present moment a great many preparations were coming into use which were not poisonous at all. The evidence against any relaxation of the present law was very strong indeed. The Chief Constable of Shropshire had written him that he would view with great alarm the provision of any further facilities for the sale of poisonous compounds, and that he was perfectly sure that no difficulty was experienced at the present time in obtaining what was required. Coroners were constantly making communications on the subject, so that, if anything, the sale should be rather restricted than otherwise. Mr. De Grey, one of the Metropolitan Magistrates, had a case before him only the other day, and he then took the opportunity of remarking that it was most important that poisons should only be sold by qualified persons. Again, the Chief Constable of Stafford had written him in a similar strain; whilst testimony was also forthcoming from the Birmingham Coroner, who remarked that the general trend of public opinion was in the direction of further restrictions. It would be found on inquiry that there was a large body of opinion among medical men—including the President of the General Medical Council and the President of the Royal College of Physicians—who declared that they were strongly opposed to any relaxation of the existing laws, and, speaking generally, that they should be made even more stringent than at present.

#### THE CHEMIST'S HORTICULTURAL KNOWLEDGE.

Then another argument put forward was that the chemist did not know as well as did the seedsman what was good to sell, but the real fact was that the chemist actually advised the seedsman. Every member of the Pharmaceutical Society, as they were doubtless aware, had to pass a stringent examination in botany, and their curator was constantly consulted upon such matters not only by the home Government but also by many foreign Governments. It was perhaps not unfair for him, then, to say that the present agitation arose from the manufacturers of these preparations, who had been very active, and some of whom were to be found in Scotland. They had no animus whatever against the manufacturer. He held in his hand a bottle containing a deadly preparation sufficient to kill 500 people. It was put up by one of these gentlemen, and this was what they wanted sold indiscriminately, and because the chemist made careful inquiries as to what the customer wanted it for and made him sign a book they said, "We will endeavour to get over this Act of Parliament and break it down." It had

been urged that if the chemists had the monopoly the price would go up. The preparation which he held in his hand was sold by one of these manufacturers for 3s. 6d. He had had it analysed and its contents consisted of arsenic and syrup or sugar, the whole costing sixpence, so that it was absurd, after this, to talk about the profits made by the chemists. Of course the manufacturers really wanted to sell their own preparations. He could not object to that, but when chemists were accused of desiring to enhance the price it was really more than they could stand without a protest. He quite agreed with Lord Onslow that if the farmer could make the preparations which he required himself by all means let him do so. If, on the other hand, he was unable to do so and wanted arsenical preparations, by all means let him get them in the easiest possible way, but that was not to be brought about by extending the sale of the poisons to anyone in any district.

#### HOW THE AGITATION WAS GOT UP.

As he had already pointed out, the agitation had been got up with great energy by those who were interested in the sale of poisons generally. There was Mr. Dobbs, the solicitor engaged on the other side, who put forward the views of the deputation which recently waited upon the President of the Board of Agriculture, then there was the Patent Medicine Vendors' Association—or some such name as that—and Mr. Connell, of course a solicitor, could make out an equally good case from the chemist's point of view, but they had not gone to that expense. They felt certain, however, that the right hon. gentleman would find it difficult, if the whole of the facts were placed before him, to relax the restrictions on the poisons as at present sold. Through the courtesy of the Privy Council he was enabled to see last year what was then in the mind of that department and of the Board of Agriculture in the direction of relaxing the present rules. That, however, would not, he was perfectly certain, satisfy those gentlemen who recently waited upon him. He ventured to assert, in conclusion, that no case had been made out for altering or interfering with the present law governing the sale of poisons. There was really no grievance whatever so far as the farming interest was concerned; and even if in Scotland there were places some ten or twenty miles apart where these poisonous preparations were obtainable, that was no reason for altering the existing law, which, on the whole, tended greatly to the public safety. They had in their possession no end of testimony to that effect, and sincerely trusted that, after due consideration of the whole of the circumstances, the President would arrive at the conclusion that no case had been made out by their opponents. If they once relaxed the rules and admitted the principle that the law of 1868 was not to be adhered to, it might be the commencement of the breaking of it down altogether, and that, he need hardly say, would be extremely unfair to the present chemists, who were created under that Act and who thought that any such change as was suggested would be detrimental to the public safety. (Hear, hear.)

#### "FACTS ARE CHIEFS THAT WINNA DING."

Mr. Wootton desired to emphasise one or two of the points that had been raised by the introducer of the deputation. He would particularly like to ask the President, when considering this matter, to read very carefully the report of the 1865 Select Committee, which was appointed to consider the question of the sale of poisons at that period. That body, it might not be generally remembered, had before them as witnesses Dr. Taylor, one of the most eminent toxicologists in the country, Dr. (afterwards Sir John) Simon, medical officer to the Privy Council, and Dr. Quain. A great many questions were addressed to these witnesses on the question of the restriction of the sale of poisonous compounds for trade purposes, and again and again both Dr. Taylor and Dr. Simon said that such restrictions were necessary. They further insisted that the only safe way to protect the public from the dangers of poisons was to provide a special class of trained persons to sell them. That testimony occurred again and again in the course of the evidence. In regard to carbolic acid, he might point out that this preparation was not known in the trade as a chemical in the year 1868, when the Act was passed. The first recorded death occurred in the Registrar-General's report for the year



1870-1, and it was not until the 'eighties that carbolic acid became pretty largely used in ordinary commerce. Then, as it was obtained so easily, it became an almost universally adopted poison. Excluding opium and its preparations, he found that in the 'nineties carbolic acid was responsible for more deaths from poisoning, according to the reports of the Registrar-General, than all the others put together, leaving out of the calculation cases of lead-poisoning and anaesthetics. The large majority of the deaths, of course, were cases of suicide. The number of fatalities from carbolic acid rose in the year 1890 to 69, in 1891 the number was 94, in 1892 it rose to 148, in 1893 to 201, and in 1894 to 258. Taking the decade ending just before the scheduling came into operation, the average number of deaths from carbolic-acid poisoning was 36, in the next year following scheduling it was 22, and in the year after that—the last record which they had—it was 20. The cases of suicide had fallen  $7\frac{1}{2}$  per cent., and they had no doubt that in the next decade there would be a reduction of at least 50 per cent. in the case of accidents. In regard to the question of persons who sold poisons being duly qualified, that was made a great point of by Dr. Quain, Dr. Simon, and Dr. Taylor, and, if he had the necessary time at his disposal, he thought he could give details to show how very important a question that really was. For although he noticed in the report of the speeches made by the gentlemen who waited upon the President the other day that they intimated their willingness to submit to all kinds of restrictions, they had always the fact to bear in mind that these people will only by force of law submit to any such restrictions. In the poisons which were specially brought to the attention of the President one of them, an insecticide prepared from nicotine, was an extremely dangerous preparation. He was at the Mansion House Police Court the other day when a manufacturer was prosecuted for not properly labelling the article sold. And this manufacturer defended his right to sell the poison in question, and insisted that it was never intended that such a preparation should be brought within the Pharmacy Act, although he subsequently agreed to label the poison. That and many other instances which could be cited showed how difficult it was to make traders realise the serious importance attaching to the sale of poisons. In the year that the number of cases of poisoning by carbolic acid went up to 258 the total number from arsenical poisoning was only 11. It was plain, therefore, that if any restrictions were removed in regard to that poison the number of cases of poisoning would be increased in a corresponding degree.

#### A QUALIFIED DEALER SPEAKS.

Mr. Cross, who next spoke, said they were greatly indebted to the President of the Pharmaceutical Society for putting the case so clearly before the head of the department. For many years past he had been accustomed to deal with these preparations from an agricultural point of view, and he should be only too happy to explain any points in connection with the selling of them. It was not at all with the view of retaining any monopoly that they were present that afternoon. They came there solely in the public interest, believing that they were doing a duty to the public in endeavouring to keep the sale of these poisons in the hands of the qualified chemists. If the present restrictions were removed he feared that the agents who visited all parts of the country would get hold of the farmers and induce them to buy just as much as they had at their disposal. That could not possibly be in the interest of the public safety. He was sorry to say that a good many of these agents would suggest that the farmers should purchase as much of these poisons as possible, in order that they might reap the greatest amount of profit. He did not believe that the farmers were obliged to use such virulent poisons as the existing weed, ant, and blight destroyers, as there were other scientific preparations the use of which was unattended by so much danger. If these preparations were legalised it would emphasise the fact that they had the force of a recommendation from an important Government department. It was quite clear that they need not always be compounded from poisonous materials. In many instances non-poisonous materials were better, and far more efficacious for the agriculturist to use, than some of the arsenical preparations. There was a very prevalent custom in Lincolnshire of sowing arsenic with wheat in order to

prevent blight and smut; but it was now universally recognised that copper salts were much better for destroying fungoid growths, and the result was that such preparations were generally adopted throughout the country. He rather suggested that, in the interests of agriculture, they should hold their hands, and in place of the poisonous preparations now on the market leave the door open as long as possible, in order that an efficient substitute might be found which should be free from poisonous ingredients as much as possible. In regard to the general question, there was no difficulty whatever in obtaining these agricultural poisons throughout the country. Chemists generally dealt in these preparations, and although a good deal of his own business had been developed in another direction, yet he should be very sorry to have to discontinue dealing in agricultural poisons, because it was good for the farmer himself that they should do so.

#### THE PRESIDENT OF THE BOARD REPLIES.

Mr. Ailwyn Fellowes, in reply, said he was very glad to have seen them, as he liked to hear both sides of the question. As they were aware, he received a deputation on the same subject the other day, but since then he had not been able to give very much attention to the matters which were brought under his notice. The deputation on that occasion placed their views before him very fairly, as he was certain they had done in the remarks which they just addressed to him. In regard to their own Association, he might perhaps mention in passing, that when visiting Peterborough the other day he had not been very long in the town before he received a deputation from their representatives, who brought before him very much the same arguments as they had used that afternoon. They might take it, therefore, that their Association was very much alive and up to its work. He was sure there was no feeling whatever among agriculturists against the profession represented by the deputation. What agriculturists, however, did feel was that they did not get sufficient opportunities for the purchase of these poisonous compounds. An enormous number of resolutions had been received at the offices of the Board of Agriculture from a variety of public bodies, all complaining about the same difficulty. Over and over again the Royal Agricultural Society and other similar bodies had expressed themselves in favour of some relaxation of the present law. They would remember that the Committee which was presided over by the Right Hon. Sir Herbert Maxwell reported on this phase of the question very strongly. "Inconvenience," they stated, "has been experienced by farmers and gardeners owing to the restriction of the sale of poisonous material to registered chemists and druggists in such districts where there is no such qualified tradesman within easy reach." This view had been very clearly established by the many communications which had been received in his department from all over the country, and from which it appeared that there were many districts—purely rural—where great difficulty was experienced on the part of the farming interest in obtaining these agricultural poisons. It was further stated in the committee's report, on the authority of a nurseryman and florist in Kent, that there were numerous small cultivators and amateurs who would use these materials—weed-killers and insecticides—if they could get them, and that chemists and druggists did not know what to recommend, whereas nurserymen had knowledge of the proper remedies and ought to be in a position to supply them. A question of much importance, of course, was that of the danger to the general public. Neither the department over which he presided nor Lord Londonderry, as the head of the Privy Council, would wish to do anything that would cause the public to run the slightest risk by the sale of these poisonous compounds. One of the speakers—Mr. Robinson—had declared that the deputation which waited upon him (Mr. Fellowes) the other day would not be satisfied with certain safeguards which it was proposed to place in the Bill to be introduced by the Privy Council. But when he told that deputation that the Government would be very strict in regard to the regulations, not a word was said against it. The regulations in the proposed Bill were, *inter alia*, as follows:

1. That no poisonous substance shall be kept in any shop or premises where articles of food are stored or kept for sale.



2. All poisons must be kept in a separate cupboard, from other goods.

3. All poisons shall be sold in an enclosed vessel labelled with the word "Poison."

4. Liquid poisons shall be sold only in bottles or tins easily distinguishable by touch from ordinary bottles or tins.

5. In granting licences the Local Authority shall have regard to the facilities already existing in the neighbourhood for the purchase of poisonous compounds.

He regarded it as most important that the name of the seller should be placed on the article or tin itself, and, further, if it was to be sold by a nurseryman or ironmonger, that it should be sold in just the same form as it had been received from the manufacturer. It should not have been opened, and, looking at that fact, he could not possibly see where the danger to the public would come in if these stringent regulations which he had suggested were put into force. Then Mr. Robinson would license anyone where there was already a chemist in the same district.

Mr. Robinson: I would not say that.

Mr. Fellowes (continuing) said the new rule stated that in granting a licence the local authority shall have regard to the facilities already existing in the neighbourhood for the purchase of poisonous compounds. That was to say, if there were already chemists established in the neighbourhood who sold these articles the local authority had the power of saying that there was no necessity for anyone else in the district to sell them. As he had said, Lord Londonderry, he was sure, would take every precaution in seeing that the public were safeguarded. He (Mr. Fellowes) would take an early opportunity of letting them know what decision had been arrived at. They were bound, of course, to think of their clients, the agriculturists, but at the same time they bore no illwill towards those who had come there to-day, their only desire being to do the best they could.

The deputation thanked the President and then withdrew.

## Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

**X-ray Progress.**—According to a German medical paper, Professor Rieder and Dr. Joseph Rosenthal, of Munich, have succeeded in taking x-ray photographs in about a tenth of a second. These experimentalists have thus been able to produce sharp pictures of the living heart and lungs, the patient holding his breath whilst the photograph is being taken. We gather from the report that the results have been attained by the use of specially good x-ray tubes and highly sensitive photographic plates.

**Prussic Acid in Gynocardia.**—Greshoff ("Apotheker Zeitung," 1905, 124) states that after extracting the fixed oil from the seeds of gynocardia with ether, and distilling the residue, he obtained 0.92 per cent. of hydrocyanic acid. No benzaldehyde or acetone was detected. He also isolated a crystalline glucoside which yielded hydrocyanic acid on hydrolysis. These results are in accordance with those recorded by Power and Lees, who assigned the formula  $C_{12}H_{18}NO_6$  to the glucoside in question.

**An Abnormal Rhubarb.**—According to Hartwich ("Journal de Pharmacie," 1905, 198) an abnormal sample of rhubarb was found to contain in the centre of the pieces a number of bodies of quite unusual appearance, feebly adherent to the remainder of the tissue. After a critical examination Hartwich comes to the conclusion that they are due to the larvæ of a coleoptera that forms a cavity in the root, which then becomes filled with entirely new tissue. The particles in question are exceedingly rich in oxalates.

**Adulterated Drugs.**—The adulteration of foreign ground gentian and liquorice roots has been referred to many times recently, and no doubt exists to a very great extent. We have recently examined a number of samples, and found a large amount of sclerenchymatous tissue when examined under the microscope, which is not to be found in genuine gentian root. This is no doubt derived from olive stones, of which any quantity is obtainable for next to nothing in the South of Europe. Dr. Mitlaeta ("Pharmaceutische Post," 1905, 41) has now found samples of ground digitalis leaves which, he states, are adulterated with the leaves of *Inula Conyza*. This sophistication is easily revealed by the microscope.

**Balsams of Copaiba and Peru.**—According to Flückiger, gurgun balsam may be readily detected by the nitrosulphuric acid reaction applied to the sample dissolved in carbon disulphide. According to Mauch, however, this reaction is not at all conclusive unless the reaction be applied to the essential oil distilled from the balsam, or more easily separated by shaking with an 80-per-cent. solution of chloral hydrate. Pure Peru balsam gives the following reaction: One drop of Peru balsam, added to 2 c.c. of a solution of chloral hydrate acidified by hydrochloric acid, gives a clear green colour, changing to brown on warming. In the presence of even small quantities of copaiba or gurgun the colour is olive green ("Journal de Pharmacie d'Anvers, 1905, 128). [The fact that the essential oils give far more delicate reactions than the balsam has long been well known, and is regularly applied in the analysis of copaiba. It was first pointed out by, we believe, Dr. Dodge.—Ed. C. & D.]

**Adulterated Opium.**—According to Masson ("Journal de Pharmacie," 1905, 529) a good deal of Smyrna opium arrives on the various markets, carefully standardised down to 10 per cent. with some foreign vegetable matter. This is not so important in itself, as one can always purchase on a morphine valuation, but the character of the resulting extract when used for various purposes is of the greatest importance. The pieces of the drug in a shipment of 233 kilos. were found to occur in regular sizes, and to yield the following figures on analysis: Water, 14.5 per cent.; extractive, 20 per cent.; and morphine, 10.2 per cent. The extractive and morphine are by no means in their normal proportions. The extract itself only yielded 5.9 per cent. of morphine, and the residue was 5.32 per cent. The opium was found to be distinctly alkaline, and a very high percentage of ash containing much lime was found. The soluble meconate of morphine had obviously been rendered insoluble through decomposition with an alkaline salt, hence the high percentage of morphine left in the marc.

**Cottonseed Oil.**—The reactions of this oil have always had great practical importance, on account of the adulteration of olive oil with the cheaper product. The Becchi reaction, which is substantially that adopted by the British Pharmacopœia, is well known to be unreliable, as many cottonseed oils do not yield it, and Halphen's reaction has recently been criticised. Halphen now publishes a note on the question ("Annales de Chimie Analytique," 1905, 141). He shows that the substance responsible for producing the colour characteristic of his reaction is a constituent of the liquid fatty acids, but has not yet been separated from them. Raikow claims to oxidise cottonseed oil with potassium permanganate, and cause it so to lose the property of yielding this reaction. He therefore considers that the colour is due to an unsaturated acid. Halphen does not agree with this method, pointing out that the properties of many other bodies present would be altered by the action of the permanganate, and therefore Raikow's conclusion is not justifiable without further experiment. Halphen has tested this point by saturating the glycerides carefully with bromine. The oil so saturated does not yield the red colour, but if allowed to yield the reaction first the red colour is not destroyed by the saturating with bromine. It is therefore probable that Raikow's conclusion is correct. The unsaponifiable matter does not yield the reaction (as does that of cod-liver oil).

**Examination of Copaiba.**—The following details are given by Engelhardt ("Pharm. Central," 1905, 231) in regard to the testing of copaiba. Specific gravity: Pará balsam varies from 0.923 to 0.975, Maracaibo balsam from 0.983 upwards, Angostura balsam 0.991, Maranhão balsam about 0.976, and African balsam 0.966 to 0.990. Seven tests are given for Gurgun balsam. (a) Two to four drops of balsam are mixed with 1 to 2 c.c. of a mixture of 1 part sulphuric acid and 25 parts of acetic acid, no red or violet colour should result: this reaction reveals 15 per cent. of adulteration. (b) If the balsam be well shaken with three to four times its volume of water and the watery filtrate mixed with an equal volume of hydrochloric acid, no red colour should be developed in fifteen minutes: this test reveals ten per cent. of adulteration. (c) Four drops of nitric acid is mixed with 1 c.c. of acetic acid, and four drops of balsam carefully poured on to the surface of the liquid. No red colour should result at the junction of the liquids. (d) Four c.c. of acetic ether, two drops of sulphuric acid, and six or eight drops of copaiba are mixed. No red colour should result in fifteen minutes. [This reaction is of doubtful value.—Ed.] (e) One c.c. of copaiba is mixed with 3 c.c. of alcohol and 1 gram of stannous chloride. The mixture is heated. A violet-blue precipitate is formed within half an hour if 10 per cent. of Gurgun balsam be present. (f) One part of copaiba is dissolved in 19 parts of carbon bisulphide: A few drops of a cold mixture of equal parts of nitric and sulphuric acids produces no red colour. (g) One part of copaiba and 5 parts of water at 50° C. are shaken and then allowed to stand in a water-butt; pure copaiba separates and leaves the water clear, whereas Gurgun balsam forms an emulsion.



## Pharmaceutical Paris.

A goodly number of those who are to attend the forty-second annual meeting of the British Pharmaceutical Conference at Brighton on July 24 have intimated that they are to take advantage of the arrangements being made by Mr. W. W. Savage for a week's trip to Paris, *via* New-haven and Dieppe, at the end of the week. Comparatively few chemists who visit the French capital are aware of the wealth of pharmaceutical interest there is to explore, and the notes that follow, by one who has gone through it all, are sure to be useful "at the present juncture."

WAS there ever a hotter July than this year? I asked myself, as I dropped down on a chair outside a Parisian *café* last summer and asked for the "bock" that cheers and not inebriates. It was on the Boulevard Saint-Michel; and as, despite the heat, the summer vacation had not yet commenced, it was full of students. A group next to me was noisily drinking success to a comrade at his coming examinations. Gathering from their talk they were pharmacy students, I managed to get into conversation with them, and asked my way to

### THE SCHOOL OF PHARMACY.

A very intelligent fellow—possibly it was because he talked a little English and was anxious to learn more—offered himself "to show me over," and I thought the opportunity too good to be missed. We strolled across the Luxembourg Gardens and down the leafy Avenue de l'Observatoire. There we found the school, pleasantly placed and less barracklike in style than most great educational establishments. A little front garden, adorned with bronze statues of Vauquelin and Parmentier, is flanked by the two wings of the building. As we passed the gatekeeper's lodge I noticed picture-postcards of the school for sale, and invested in a set. The obliging janitor immediately offered to open such rooms as might happen to be locked at that hour, and we thus managed to see pretty well all over the building. To "walk the studious cloisters' pale" to the Council-chambers, the directors' and secretary's offices, the great hall or "Salle des Actes," the two amphitheatres, did not take long. We glanced at the garden behind, where medicinal plants are grown and where M. Guignard, as Professor of Botany, has a special laboratory in their midst.

A wide stone staircase leads to the first floor. Here are situated the library, a small examination-room, and rooms devoted to the collections of *materia medica*, minerals, zoological specimens, physical instruments, herbarium, etc. The students' laboratories are principally situated in the two wings. That devoted to micrography, on the top floor, is one of the most modern. The artistic decoration of the edifice aroused my admiration. I noticed especially Besnard's frescoes in the lobby outside the Salle des Actes; the stained-glass windows in the same vestibule; the four windows on the first floor (the Apothecaries' Corporation, Lavoisier, Laurent, and Bernard de Jussieu); a few oil-paintings in the Salle de Conseil, and the wonderful collection of old portraits in the Salle des Actes (which so struck Mr. Idris when on his Parisian visit). There is a series of medallions of famous men around the front of the building, but rather too high up for close study.

My guide presented me to Dr. Dorveaux, the librarian. I noticed that he speaks German as well as French—he is from Lorraine, I believe. We found a very curious collection of old documents, in French and Latin, framed and hung up in various parts of the library. Dr. Dorveaux is a bibliophile and an antiquarian, and showed me some reprints he has edited of rare and ancient works on pharmacy. The room is divided into three portions: the first occupied by the staff; the next by the student readers; the third being a sort of pharmaceutical "journalists' paradise," where the English, American, French, German, and other pharmaceutical periodicals are neatly arranged in endless rows of cases. I noticed a collection of the *C. & D.* from a very early period, the last few numbers being strapped in a "chemise" till the volume is complete and "we can get them bound like the others."

As we passed downstairs and through the corridor, a short, spare man, with aquiline features, passed us, and I imitated my companion's example in promptly raising my

hat. "M. Guignard, our director," he whispered. A little further on a cordial "bon jour" was exchanged with a taller, grey-bearded man, Professor Bourquelot. Leaving the school, we made a halt at a *café*—just opposite Bullier, the students' "ball-room"—and then, like a giant refreshed, my new-found comrade insisted in doing the honours of

### THE "BOUL'MICH'."

as the Boulevard Saint-Michel is termed in student slang. We began by the Hospital of Val-de-Grâce, a handsome building, where army pharmacists are trained. In the cloister are memorials to some who died on active service. Army pharmacists wear a uniform like the officers, the only distinguishing mark, it was pointed out to me, being the green velvet facing on collar and cuffs. This hospital is just off the Boulevard, but, coming back to it, we passed the School of Mines, where there is a remarkable collection of minerals. Here M. A. Carnot, brother of the murdered President, is chemistry professor; a little further on, one may glance up the rue Soufflot and catch a glimpse of the Panthéon, where the President was buried. Opposite the Panthéon is the Ste. Geneviève Library, one of the very few Parisian libraries open in the evening, and largely, almost exclusively, frequented by students of the Quartier Latin. Continuing our way up the Boulevard, we passed the "students' *cafés*," Harcourt, Steinbach, la Source, etc. Here again exhausted nature reclaimed a short halt, and very pleasant it was to sit on the *terrasse* and watch the lively groups pass; for here, it seemed to me, there is more youth and less blasé middle-age than on the Grands Boulevards.

In the rue des Ecoles, just on the right, is the "A. A.," or General Association of Paris Students. "We pharmacy students used to belong to it," my companion explained, "but now we've an Association of our own." Close by is the Cluny Museum of Antiquities, where some quaint old drug-pots and mortars may be seen. Then comes the main entrance to

### THE SORBONNE,

where the Paris Faculties of Sciences and Literature are housed. Little is now left of the ancient building, except the old chapel, with Richelieu's tomb, and the statue of "Notre Dame des Etudiants," to whom prayers are offered up and candles burned by pious candidates for success at examinations. I glanced at my guide as he gave me this information: "No, not pharmacists," he said. "Since the days when Flaubert described Homais, and long before, the School of Pharmacy belongs to the Progressive party." Nowadays, the Sorbonne is the "New Sorbonne," the vast and stately modern home of the Faculties of Literature and Sciences, the finest building of the Paris Universities. We had not time to see all, but one or two features much struck me in this palace of science. The grand stone staircase, with its magnificent gilded balustrade, leads to a first-floor vestibule, where the History of Literature and Sciences has been depicted on the walls by leading French artists—a series of magnificent compositions. The inscriptions showed me a few names. I recognised Ambroise Paré, worthiest of old-time surgeons, tying up the artery of a wounded harquebusier; Bernard Palissy, lecturing on mineralogy (he might have lectured in chemistry, too, the famous potter); Pascal, who weighed the air; Buffon reading his Natural History; Lavoisier and Berthollet in the laboratory (almost the same scene as depicted in stained glass at the School of Pharmacy); Laennec auscultating a consumptive, and Cuvier studying fossil anatomy. Then I was shown the Grand Amphithéâtre. "One of the finest in the world," said my companion. It is ornamented by statues of Lavoisier and others, while "Puits de Chavannes," a composition representing "Sciences," is at the back of the platform. Here all the great functions of the Paris University take place. The entrance to the

### FACULTY OF SCIENCES

is at the side, on the rue de la Sorbonne. The chemistry amphithéâtre has oaken benches for 250 students, an ingenious system of electric blinds, a ceiling emblazoned with the names of famous chemists, and a curious fresco by Besnard—"Biology, or Death gives Birth to Life." The geology, physics, zoology, and botany amphitheatres are also interesting. Here, as in the corridor, one cannot fail to be struck by the manner in which the great French painters have artistically allegorised the most sternly matter-of-fact



sciences. Nor should a visit to the laboratories and library be omitted by those who wish to see the general arrangement of an up-to-date science school.

#### THE SCHOOL OF MEDICINE

is up a street just on the other side of the Boulevard Saint-Michel. This cannot compare in interest with the Sorbonne; it is a mixture of ancient and modern buildings, none of which call for special notice. Adjacent are two anatomical museums, called after Orfila and Dupuytren. "We can't go in without an order," I was told. "It is a great pity, for there are some very pretty things." As they illustrate all the ills that flesh is heir to, I did not share his evident disappointment. We pushed on to

#### THE INSTITUTE OF FRANCE,

only some ten minutes' walk, pleasantly situated on the banks of the Seine. This is the home of the Academy of Sciences; and the famous chemist, M. Berthelot, as Perpetual Secretary of that august body, is allotted an official residence in this ancient and solemn building. We peeped into the hall where the Academy of Sciences meet—a sort of old-fashioned parlour. "If you come here on a Monday afternoon," said the young pharmacist, "you will see some of the greatest men in French sciences. Yes, the sittings are public; anybody can go. M. Guignard is a member, you know, and M. Moissan, who used to be professor at the School of Pharmacy; so was Berthelot himself, for that matter. And the Mazarine Library, too, is open to all. It is such a quiet, old-fashioned place this, and I daresay you have heard of the librarian, M. Alfred Franklin. No, he's French, not English, in spite of his name. He has written a curious book on 'Medicaments in the Olden Time.'"

#### THE ACADEMY OF MEDICINE

is a brand-new building in the rue Bonaparte, just a little way further up the banks of the Seine. Here, again, I was given a list of half a dozen of "our professors" who sit in the pharmacy section of the Academy. "And M. Riche—he is still analytical chemist at the Mint there—was President of the Academy when they opened this new place, and personally greeted President Loubet and all the authorities. The Mint, you know, is a little further off the quay." We passed it, in fact, on our way to

#### THE CENTRAL HOSPITAL PHARMACY.

Nearly opposite Notre Dame, on the Quai de la Tournelle, this old building is devoted to the collection, preparation, and distribution of all the medicaments destined to the various Parisian hospitals. It also contains a collection of curious old drug-pots, etc., gathered from the *dispensaires* of these establishments.

"And now I must leave you," said my youthful mentor, as we sipped a farewell absinthe on the *terrasse* of a neighbouring *café*, for it was close on dinner-time. "But please don't imagine I've shown you all the Latin Quarter. There is the Jardin des Plantes down there further—you have only to follow the river till you come to it." One of his comrades who had been in London, he explained, had told him it was like the "Zoo" and the South Kensington Natural History Museum rolled into one, with a flavour of Kew Gardens and an anatomical and paleontological and ethnographical collection thrown in.

#### THE HOSPITALS

he also urged me to visit. The Quarter is full of them—the Pitié, the Charité, Laennec, Enfants-Malades, Maternité, Necker, Ricord—all a stone's throw from the School of Pharmacy. He was an "interne" himself, like most of his comrades, and explained the Parisian system of hospital pharmacists, which seems to possess many good points. At "The Central Pharmacy for Military Service," 160 rue de l'Université, all drugs and medicaments for use in French military hospitals are analysed, and contracts drawn up and signed. The stores are situated in the Quai d'Orsay and Boulevard de la Tour Maubourg. In the Hôtel des Invalides, which is the "Horse Guards" of Paris, Mr. Balland has a laboratory, where he examines Army cloth, metal-works, etc. In fact, all French Army and Navy supplies are scientifically examined by competent chemists holding pharmaceutical degrees.

#### THE PASTEUR INSTITUTE

I visited next morning. It is a good deal further west, beyond the Bon Marché. A curious sight is the daily inoculation at 10 A.M. of persons bitten by mad dogs. There are usually a hundred or two of all ages and classes, wooden-shoed Breton or Basque peasants, Parisian working people, etc. As London is one of the very few great European cities which have not yet a Pasteur Institute, the English form the majority of the foreign element. "Many British soldiers," I was told, "used to come all the way from India to Paris for the purpose." The long journey must have considerably increased the difficulty of treatment. When this operation is over (about 11 A.M.) is the best time to visit. There are the private laboratories of Dr. Roux and their coadjutors, the large laboratories for classes and study, a library, etc. One great attraction is Pasteur's Tomb, in the vaults below the main entrance, a magnificent work of art, which is open twice a month to the public.

The Bacteriological Institute, on the other side of the rue Dutot, was founded largely with the money given by the late Baroness Hirsch, and is interesting as one of the newest scientific establishments of the French capital.

This was all time allowed me to see. It was possible that by keeping "on the Surrey side" of the Seine I missed one or two interesting points: the Municipal Laboratory, for instance, and the Central Naval Pharmacy, already mentioned. But I saw sufficient of the "Rive Gauche" to assure me that the man who wishes to study Paris as the "Brain of France" must follow the well-known English "Rule of the Road":

If you keep to the left you are sure to go right,  
And if you go right you go wrong.

## Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," June 21, 1905.)

- "ENPEGOL" and "PERISOL"; for photographic chemicals. By Neue Photographische Aktien Gesellschaft, 27 Siemensstrasse, Berlin-Steglitz, Germany. 272,764.
- Clover and scroll device; for chemicals. By Clover, Mathers & Stitt, 6 Grayson Street, Liverpool. 272,811.
- "NAGGO" ("Nag" disclaimed); for veterinary and agricultural chemicals. By Raybould Whitehouse & Co. Ltd., Reform Mills, Wellington Road, Dudley. 271,257.
- "LAMBO-NAVEL"; for a veterinary medicine. By J. R. Kirkham, Cadeby Avenue, North Thoresby, S.O., Lincolnshire. 271,715.
- "PLASMON"; for chemicals, raw materials, scientific instruments, fermented liquors, candles, soap, etc., perfumery, and polishes. By J. R. Bowick, 5 Bickenhall Mansions, Baker Street, London, W. 271,844, 271,846, 271,847, 271,848, 271,850, 271,851, 271,852.
- "SKI"; for chemicals and a polishing-preparation. By Lever Bros. Ltd., Port Sunlight, Cheshire. 272,215, 272,216, 272,218.
- "BYNOLO"; for veterinary preparations. By F. Hewthorn & Co., Ltd., 70 Finsbury Pavement, London, E.C. 272,644.
- "PEROLA"; for chemicals exclusive of essential oils. By P. R. Palethorpe, 2,400 11th Street, Louisville, U.S.A. 271,598.
- "EMERO," "ELEVO," devices of animals and dividers and a signature; for an embrocation for human use. By B. C. Tipper & Son, 43 Homer Street, Balsall Heath, Birmingham. 271,504.
- "EUTHOLCAINE" ("Eu" disclaimed); for a medicine. By H. W. K. Pears, Goldstone Chemical Works, Hove, Sussex. 271,609.
- "JACKSONOIDS"; for a pill. By A. E. Jackson, 55 Bancroft Road, Mile End, London, E. 272,637.
- "JAPINE" ("Jap" disclaimed); for a medicine. By J. F. Mayne, The Chalet, Foxrock, co. Dublin. 272,653.
- "CAS"; for an embrocation. By F. R. de Lisle, 11 Old Pic Street, Walton-on-Naze. 272,802.



- "THREECROSS BRAND"; for stearino. By the Royal Wax Candle Mfr., Ruysdaelkade, Amsterdam. 272,192.
- Device of an owl; for scientific instruments exclusive of optical apparatus. By C. J. Hewlett & Son, 40 Charlotte Street, London, E.C. 271,364.
- "GLEBA" and device of a satyr; for a cattle food. By H. N. Bathgate & Co., 1 Trinity Street, Bristol. 271,768.
- "LEMHUNI"; for a non-alcoholic and non-aerated beverage. By F. Goodrich, 14 The Pavement, Crouch End, London, N. 272,106.
- "QUISISANA"; for mineral and aerated waters. By W. S. E. Davis, 20 Maddox Street, London, W. 272,557.
- "PLAY"; for soaps. By H. Heaton & Co., Springfield Soap Works, West Bowling, Bradford. 269,889.
- "OTO"; for candles, soap, detergents, etc. By Lever Bros., Ltd., Port Sunlight, Cheshire. 271,060.
- Cherub device; for a perfume. By Breidenbach & Co., 48 Greek Street, London, W. 270,622.
- "PERMIT"; for a tooth-paste, tooth-powder, or mouth-wash. By P. L. Baker, Highbury, Stoughton Drive, Leicester. 272,495.
- "S. A. CHENEY" (signature); for a hair-preparation. By S. A. Cheney, 32 Claverton Street, London, S.W. 271,921.
- "FEROSINE"; for a hair-restorer. By C. S. Finn, 78 Eastern Road, Brighton. 272,536.

(From the "Trade-marks Journal," June 28, 1905.)

- "BITURED"; for chemicals. By Wailes, Dove & Co., Ltd., 5 St. Nicholas Buildings, Newcastle-on-Tyne. 273,100.
- Double cross device of the word "KLENO"; for an anti-corrosive, anti-incrustator and disinfectant. By W. B. Rogers, 6 New Square, Cambridge. 270,894, 270,895.
- "FORTRESS"; for caustic soda. By Chance & Hunt, Ltd., Park Lane, Oldbury. 271,013.
- "VIROL"; for agricultural, etc., chemicals. By Virol, Ltd., 152 Old Street, London, E.C. 271,345.
- Farm, monogram, and circles device; for a veterinary food. By M. W. Savage, 121 First Avenue North, Minneapolis, U.S.A. 272,542.
- "LANOLYPTI"; for a medicated ointment, jelly, tablet, cream, or liquid. By the Collins Eucalypti Remedy Co., Ltd., 31 Newington Causeway, London, S.E. 266,367.
- "FROGLET"; for a medicated lozenge. By the Frog-in-your-Throat Co., 623 Callowhill Street, Philadelphia, U.S.A. 267,167.
- Device of a section of the skin of the head with a hair; for a hair-preparation contained in capsules. By G. E. Dixon, D6 Artillery Mansions, Victoria Street, Westminster. 272,144.
- "REJUVENIDS"; for chemicals. By the Chemical Institute, 4 Byard Lane, Nottingham. 270,898.
- "IROZENE" and signature "HARRIDEE & Co."; for chemicals. By Harridee & Co., 45 Yeaman Shore, Dundee. 272,473.
- Label device of conventional flowers; for gelatine. By Emmerich & Bertholon, 9 Great Tower Street, London, E.C. 271,250.
- Owl device; for photographic paper. By C. J. Hewlett & Son, 40 Charlotte Street, London, E.C. 271,366.
- "BOVRIL" and device of Samson and the lion; for food substances. By Bovril, Ltd., 152 Old Street, London, E.C. 270,031.
- Device of a motor-car; for soap, matches, and laundry preparations. By W. W. Aldridge & Son, 7 Islington Green, London, N. 271,759.
- Device of a guitar; for laundry soaps. By Ortelly & Lavarello, Irish Town Street, Gibraltar. 272,182.
- "DENTALYPTI" ("Dental" disclaimed); for a powder, paste, or liquid dentifrice. By the Collins Eucalypti Remedy Co., Ltd., 31 Newington Causeway, London, S.E. 266,363.
- "SARVOL" ("Salve" disclaimed); for perfumery. By L. Knowles, 170 Clerkenwell Road, London, E.C. 271,520.

THE German Shellac Users' Association offers a prize of 50l. for the discovery of an easy and simple method of testing the purity of shellac. Competitors should forward their methods to the Chairman of the Association, Herr Louis Mann, Berlin, W., Meineckestrasse 4.

THE exports from Borneo during 1903 included beeswax valued at \$10,981, Borneo camphor \$26,242, cutch \$145,235, damar \$54,771, gambier \$12,066, gutta percha \$100,630, india-rubber \$90,656, opium \$4,854, pepper and chillies \$3,743. Among the imports were aerated waters valued at \$42,696, damar \$54,771, gambier \$12,066, gutta percha \$100,630, india-rubber \$3,030. The returns of imports and exports for 1904 have not yet been received by the British North Borneo Co., Ltd., from whose annual report the above figures have been abstracted.

## South African News.

(From our own Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.  
Pharmaceutical Society of Cape Colony.  
Natal Pharmaceutical Society.  
Transvaal Pharmaceutical Society.  
Rhodesia Pharmaceutical Society.  
Northern District Chemists' Association.  
Pharmaceutical Society of Orange River Colony.

### Cape Colony.

DURING the four months ending April drugs and chemicals valued at 81,000l. were imported into Cape Colony compared with 89,000l. during the corresponding period of 1904.

FROM A RUSSIAN POINT OF VIEW.—It seems to me, writes a correspondent to the "Pharmatzevticheski Journal," that it would not be uninteresting to my countrymen to learn something of the position and life of some comrades at the Cape of Good Hope, where, in consequence of the oppressive conditions of pharmacy at home, a score or more of my colleagues have come to try their fortune. In Cape Colony, Natal, and other lands under the control of Britain it is rare to find a foreign pharmacist, for, according to the law of Great Britain, only those foreigners in whose countries English pharmacists may practise may do so in English Colonies. As is known, in England pharmacy stands at a very low level, and therefore European Governments do not allow English pharmacists to practise in their countries. The laws by which foreign pharmacists might practise in the Transvaal and in the Orange Free State were swept away by the English conquest, and now none may hold a pharmacy without passing an examination similar to that required in Russia for a pharmacist's assistant. But the pharmacies previously existing under the Beer régime retain their rights. The pharmacies in the Transvaal, our critic continues, have little in common with a Russian pharmacy. They are usually stores, where cosmetics, brushes, toilet sundries, knives, scissors, sponges, and various patent medicines are sold. Pink Pills and Beecham's pills are sold in large quantities. Prescriptions are very limited. For example, in my pharmacy, where the turnover is about 3,000l. a year, or even more, only 1,500 prescriptions are made up. The balance of the sales is limited to proprietary articles exclusively and some sundries. [English pharmacy is on a higher level than Russian.—Ed.]

COLONIAL INDUSTRIES.—The South African Manufacturers' Association of Cape Town has issued a pamphlet on the present condition of Colonial industries, the information in which is mostly based on the evidence given before the Select Committee on Colonial Industries which was dealt with fully in our Coloured Supplement last week. In submitting the report to the Government the Association states that as a result of the present tariff, all local industrial efforts have been strangled in every direction, manufacturing concerns have been crippled, closed down, or driven to bankruptcy due to dumping from abroad, and wage-earners are out of work and destitute. The Association suggests an equitable and judicious leveling-up of those portions of the tariff concerning local producers and industries, which will enable them to compete on a fair basis. In a paragraph relating to the disabilities under which manufacturing chemists in South Africa labour, it is stated that formerly a large number of people were engaged in Cape Colony in the manufacture of Dutch medicines. These were all manufactured from colonial spirit. Colonial manufacturers have sometimes had to pay as much as 14s. 6d. per gallon for the same spirit that they are now buying at 5s. 3d. owing to the small amount required and the consequent decrease in price. Some firms, however, in England and Germany naturally saw an opening for doing trade in the Cape, and they commenced manufacturing the various Dutch remedies, using the cheap spirit and cutting the ground from under the feet of the Cape manufacturers. This competition became so serious that two large firms shut down the manufacture of these remedies altogether and built factories in England, thereby destroying a means of livelihood to a large number of colonists.



**Natal.**

**THE CYCLONE.**—The cabled summary of the terrible catastrophe which occurred near Durban last week, writes our Durban correspondent on June 10, cannot possibly give more than a bare outline of the many fatalities which took place as the result of the cyclone—the tail-end of which struck Durban on the night of May 31. Many houses were unroofed, and damage in minor ways was evidenced in all directions; but the main effect was seen at the Pinetown reservoir, where, owing to the tremendous inrush of water in consequence of the heavy fall of rain, the water-dam gave way, and allowed an enormous amount of fresh water to swell the small rivers known as the "Umbilo" and the "Umlatuzan." This, in conjunction with the heavy flow of water from the upper reaches, caused the rivers to overflow their banks and unite in one large onrush towards the low-lying ground near the head of the Durban Bay. Hundreds of Coolie gardeners, who lived there in huts of bamboos and straw, were drowned before they had time to get away. Altogether over five hundred of the poor victims have been recovered by the police at the time of writing, and it is expected that many more will be found in the mud, etc., left by the receding waters. The Mayor of Durban has opened a public subscription-list for the benefit of the sufferers.

**MISSIONERS OF EMPIRE.**—Just before the mail left Mr. T. Edward Lescher (of Evans Sons Lescher & Webb, Ltd.) had been visiting Durban on behalf of his firm. In an interview with our correspondent, Mr. Lescher said he considered the general tone of business at the Rand and other centres was by no means so depressed as some people would have us believe. Mr. Lescher left by the mail-boat the same week for the Cape. Mr. Cocksedge, representing Messrs. G. B. Kent & Sons, Ltd., of brush fame, was in Durban at the same time, and Piver's representative, the genial Mr. Walter Marshall, was also there, on his way up to Johannesburg for a week or two, previous to revisiting Durban to gather up a few perfume "crumbs" for the Christmas season.

**EARLY CLOSING.**—Natal chemists are in a state of expectancy regarding the fate of their petition to the Shops Bill Committee. The evidence before the Commission was concluded some time ago, so some news of the arrival of the Bill in the House of Legislature ought to be soon at hand. A special feature in the petition is the closing of drug-stores on Saturday afternoons between two o'clock and seven o'clock. This will mean a great deal to the chemist's assistant in South Africa, especially during the hot summer months, from December to April.

**Transvaal.**

**DURING** the quarter ending March 31, the imports of drugs and chemicals into the Transvaal amounted in value to 149,000*l.*, compared with 104,000*l.* for the corresponding period of 1904; photographic materials were imported to the extent of 4,000*l.*, against 5,000*l.*

**A TRANSVAAL SMOKER.**—A smoking-concert, under the direction of the Transvaal Pharmaceutical Society, was held last month in the Grand National Hotel, Johannesburg. Mr. Lewis Thomas (President of the Society) occupied the chair, and there was a large attendance of members and friends. A short address by the President and the customary vote of thanks brought an enjoyable evening to a close.

**A LAW** has been passed by the Belgian Chamber and Senate to prohibit the manufacture and sale of absinthe within the kingdom on account of the growing increase in the consumption.

**AN** opening announcement by a chemist in a Scotch paper the other day was immediately followed by this text: "In thee, O Lord, do I put my trust; let me never be put to confusion.—Ps. lxxi. 1." This was not the chemist's ad.

**A LONDON COMPANY**, formed to take over an antimony-mine in the Spanish province of Cordoba, after obtaining 2 tons of ore in 1903, produced no ore last year, and the working-capital is now said to be exhausted.

**THE** exports of beeswax from Tangier, Larache, and Tetuan during 1904 amounted to 2,119 cwt., against 3,638 cwt. during 1903. The greater part of the exports from Tangier went to Germany, while those from Larache and Tetuan went to Germany; the United Kingdom, and France.

**American Notes.**

(From our Correspondent.)

**NARCOTIC DRUGS.**—The State of North Carolina has recently enacted an anti-narcotic law, making three States in all who have taken this step during the present season. No cocaine, opium, or morphine may now be sold except on the written prescription of a reputable physician, veterinary surgeon, or dentist, and this prescription may not be refilled unless so directed by the prescriber in each case. The punishment for a violation of the act is a fine of \$50 or an imprisonment not exceeding thirty days.

**A.P.H.A.**—Great preparations are being made for this year's meeting of the American Pharmaceutical Association, to be opened on September 4 at the popular seaside resort, Atlantic City. One of the attractive features of the meeting will be a popular lecture on radium and radioactivity, to be delivered on the Friday evening by Dr. Charles Baskerville, Professor of Chemistry in the College of the City of New York. Mr. E. H. Gane, Chairman of the Committee on Scientific Papers, secured Dr. Baskerville's services in this connection.

**DISCIPLINARY POWERS.**—The State of Michigan has just enacted a pharmacy law which is bound to attract a good deal of attention. Under its operations the Board of Pharmacy will have power to suspend the certificate of registration of any druggist who has been found guilty in a responsible court of law of violating the Liquor Act. The appointment is provided for of an assistant secretary, who shall devote his entire time to ferreting out violations of the pharmacy and liquor laws, and to seeing that proper punishment is meted out to all offenders.

**WHERE, AND OH, WHERE!**—This is the season of the year when the eighty-three American schools and colleges of pharmacy are holding their commencements. Scores, and even hundreds, of graduates are being turned loose upon the pharmaceutical community all over the country, and the wonder is, where do they all find employment or an opportunity to establish new pharmacies? Pharmaceutical education is rapidly becoming so general in this country that a non-college man will before long be a rarity. Particularly is this so in view of the new legislative movement providing that only college graduates shall be permitted to become registered proprietors. Three States already make this demand—New York, Pennsylvania, and Wisconsin.

**COCAINE SNUFFS.**—The results of the investigation into the composition of nine proprietary catarrh snuffs by the N.Y. Board of Pharmacy has been published. By the Eastern Branch analysts the percentage of cocaine hydrochloride was as follows:

Gray's catarrh powder, 0.98; Crown catarrh powder, 2.699; Coryzon catarrh powder, 0.96; Dr. Cole's catarrh cure, 3.76; Dr. Birney's catarrhal powder, 1.982.

Four samples of snuff made by C. N. Crittenton & Co., N.Y. (Birney's), Anglo-American Medicine Co., Toronto (Agnew's), Crown Pharmacal Co., N.Y. (Crown), and Gray Medicine Co. (Gray's) analysed by the general board, were found to contain cocaine, and letters have been sent to the makers calling their attention to the fact that such proprietaries must be labelled poison in red ink.

**CHLOROFORM PATENT EXPIRES.**—The expiration of the chloroform patents in the United States, says the "American Druggist," has brought to light an interesting trade development, in which two well-known chemical houses figure prominently. Some time ago litigation occurred between the Albany Chemical Co. and the Roessler & Hasslacher Chemical Co. over an alleged infringement of a patent process for making chloroform from acetone and bleaching-powder. The litigation was finally ended, and the relations between the two companies have since been harmonious. Not long ago these firms formed the Chlorine Products Co., to manufacture chloroform at Niagara Falls. This step was taken in order to be able to meet successfully any competition that might result from the expiration of the acetone-process patents. Within the past year or so the wholesale price of chloroform has dropped from about 40c. per lb. to 25c., although the cost of raw materials has not been correspondingly reduced.